

PROBLEM SOLVING and Reading Strategies Workbook

Grade 2

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HSP Math

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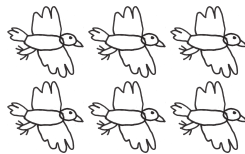
Understand Addition

Ted sees 6 birds flying.

Then he sees 4 more birds in a nest.

How many birds does Ted see in all?

- How many birds does Ted see flying? 6 birds
- How many birds does Ted see in a nest? _____ birds
- Write the number sentence to show how many birds Ted sees in all.



_____ ○ _____ ○ _____

- How many birds does Ted see in all? _____ birds

Write a number sentence to solve.

- Linda has 7 butterfly stickers and 2 bird stickers. How many stickers does she have in all?

_____ ○ _____ ○ _____
_____ stickers

- Challenge** Harley draws 14 fish in all. 8 are red. The rest are blue. How many blue fish does Harley draw?

_____ ○ _____ ○ _____
_____ blue fish

Count On

Ming has 5 shirts.
Then she buys 2 more shirts.
How many shirts does Ming have now?



- Start with the greater number.
Which number is greater: 5 or 2? 5
- How many more should you count on? _____
- Say 5.
Write the numbers to count on 2 more. 5, _____, _____
- How many shirts does Ming have in all? _____ shirts

Count on to solve.

- There are 3 fireflies by the window. Then 6 more join them. How many fireflies are by the window now?



firefly

_____ fireflies

- Challenge** Anna finds 7 frogs in the morning and some more frogs in the afternoon. She finds 10 frogs in all. How many frogs does she find in the afternoon?



frog

_____ frogs

Doubles and Near Doubles

There are 8 big worms.
There are 7 little worms.
How many worms are there in all?



worm

1. Is this a doubles fact or a doubles-plus-one fact?
Circle the correct answer.

One addend is one
more than the other.

doubles

doubles plus one



2. What doubles fact can you use to help you find $8 + 7$?

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

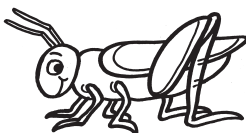
3. How many worms are there in all?
You can add 1 more to the doubles fact to find out.

$$8 + 7 = \underline{\quad}$$

4. There are $\underline{\quad}$ worms in all.

Use doubles or doubles plus one to solve.

4. A grasshopper jumps 6 times. Then it jumps 7 more times. How many times does it jump in all?



grasshopper $\underline{\quad}$ times

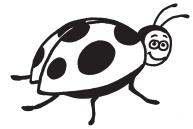
5. **Challenge** Ernie found 17 ants. He puts them in two groups. One group has 1 more ant than the other group. How many ants are in the smaller group?



ant $\underline{\quad}$ ants

Make a Ten

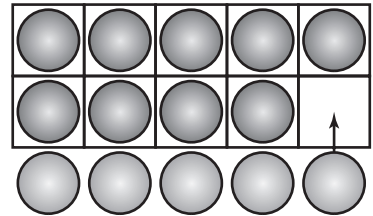
There are 9 ladybugs on top of a leaf.
There are 5 more ladybugs under the leaf.
How many ladybugs are there in all?



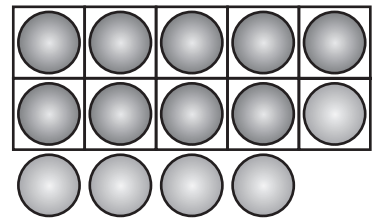
ladybug

1. How many more \bigcirc do you need to fill the ten frame?

_____ more \bigcirc



2. Make a ten. What numbers can you add now? 10 and _____



3. Complete the number sentences.

$$9 + 5 = \underline{\quad} \text{ and } 10 + \underline{\quad} = \underline{\quad}$$

4. How many ladybugs are there in all? _____ ladybugs

Use a ten frame and \bigcirc to make a ten.
Complete the number sentences.

5. Ken sees 8 bees flying and 4 bees on a flower.
How many bees does he see in all?

$$8 + 4 = \underline{\quad}$$

$$10 + \underline{\quad} = \underline{\quad}$$

_____ bees



bee

6. **Challenge** Jeff drew 9 spiders. How many more spiders does he need to draw to make 12?

$$9 + \underline{\quad} = 12$$

$$10 + \underline{\quad} = 12$$

_____ more spiders



spider

Algebra: Practice the Facts

Nora has 7 pencils.

Dan has 1 fewer pencil than Nora has.

How many pencils do they have in all?



- How many pencils does Nora have? 7 pencils
- Dan has the same number of pencils, minus one. Write a fact to show Nora's number doubled. $\underline{\quad} + \underline{\quad} = \underline{\quad}$
- Change an addend to one less. Write a fact to show how many pencils they have in all. $\underline{\quad} + \underline{\quad} = \underline{\quad}$
- How many pencils do they have in all? $\underline{\quad}$ pencils

Write a number sentence.

- Billy makes a poster with 7 red ants and 8 black ants. How many ants are on his poster in all?

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$



ant

$\underline{\quad}$ ants

- Challenge** Joni and Frank read 11 books in all. Joni reads 6 books. How many books does Frank read?

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$



book

$\underline{\quad}$ books

Algebra: Follow the Rule

Tom and Erin play a guessing game. First, Tom says a number. Then, Erin thinks of a number to add to it. Erin only tells Tom the sum.

When Tom says 4,
Erin says 7.

When Tom says 6,
Erin says 9.

When Tom says 8,
Erin says 11.

What is Erin's rule?

1. When Tom says 4, what number does Erin say? 7
2. What number do you add to 4 to get 7? Add _____.
3. What number do you add to 6 to get 9? Add _____.
4. What number do you add to 8 to get 11? Add _____.
5. What is Erin's rule? Rule: Add _____.

Solve.

6. When Erin says 5, Tom says 10. When Erin says 6, Tom says 11. When Erin says 7, Tom says 12. What is Tom's rule?

Rule: Add _____.

7. **Challenge** Tom gives Erin a number. Erin tells Tom the sum is 8. If Erin used the rule: Add 2, what number did Tom give Erin first? _____

Algebra: Add 3 Numbers

Oscar sees 8 white butterflies, 5 blue butterflies, and 2 yellow butterflies. How many butterflies does Oscar see in all?

1. First add the two groups together that make a ten.



white butterflies



yellow butterflies

$$8 + 2 = \underline{10}$$

2. Now add the last group of butterflies.



blue butterflies

$$10 + \underline{\quad} = \underline{\quad}$$

3. You can add the three groups of butterflies in any order, and the sum will still be _____.
4. Oscar sees _____ butterflies in all.

Add in any order. Find the sum.

5. Vicki sees 1 large ant, 2 small ants, and 8 medium ants. How many ants does she see in all?



ant

_____ ants

6. **Challenge** Henry has 6 blue hats, 4 red hats, and some green hats. He has 14 hats in all. How many green hats does he have?



hat

_____ green hats



Reread

**Vocabulary
reread**

When you reread a problem, you read it again to find all the important information. It also helps you understand the question.

Hal draws a picture of 6 bees.
Rosa draws a picture of 8 bees.
How many bees do they draw in all?



bee

- How many bees does Hal draw? 6 bees
- How many bees does Rosa draw? 8 bees

- Draw Xs for Hal's bees.
Draw Xs for Rosa's bees.

Hal's	XXX	Rosa's	XXXXX
Bees	XXX	Bees	XXXXX

- Add to find how many bees they draw in all.
Write a number sentence.

6 + 8 = 14

- Hal and Rosa draw 14 bees in all.

Reread the problem. Draw a picture to solve.

- Jen has 9 stamps. She buys 3 more stamps. How many stamps does she have now?

stamp



_____ stamps

- Bill sees 7 brown rabbits and 8 white rabbits. How many rabbits does he see in all?

rabbit



_____ rabbits

Understand Subtraction

Nine children are playing soccer.
Then 5 children stop to rest.
How many children are still playing soccer?



soccer ball

1. How many children start playing soccer? Draw them.



9 children start playing soccer.

2. How many children stop to rest?
Cross them out.

_____ children stop to rest.

3. Count the children who are left.
Write the number sentence.

_____ ○ _____ ○ _____

There are _____ children left.

4. How many children are still playing soccer?

_____ children are still playing soccer.

Write the number sentence. Solve.

5. Tony sees 7 birds in a tree.
He sees 2 birds in a bush.
How many more birds are in the tree than are in the bush?



bird

_____ ○ _____ ○ _____

_____ more birds

6. **Challenge** Jay and Cal share 8 apples equally. How many apples does each boy get?



apple

_____ ○ _____ ○ _____

_____ apples

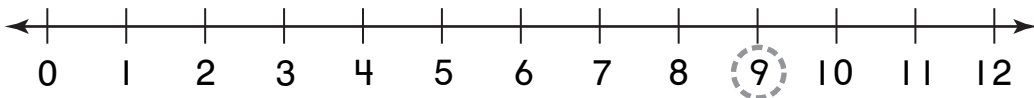
Count Back

There are 9 water bottles in the cooler.
Jane takes 2 water bottles.
How many water bottles are left?



water bottle

1. How many water bottles were in the cooler to start? Circle the number.



There were 9 water bottles in the cooler.

2. How many water bottles does Jane take?

Jane takes _____ water bottles.

3. Use the number line. Start at 9. 9
Then count back 2 to find the answer. - 2

9, _____, _____

4. How many water bottles are left?

_____ water bottles are left.

Count back to find the difference.

5. Wanda has 7 crayons. Maurice has 3 crayons. How many more crayons does Wanda have than Maurice?



crayon

_____ more crayons

6. **Challenge** Ms. Benz buys 12 carrots. She eats some carrots at dinner. Nine carrots are left. How many carrots did she eat?

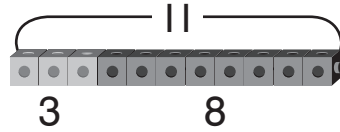


carrot

_____ carrots

Algebra: Fact Families

Josh wants to find a fact family.
He uses the numbers 3, 8, and 11.
What related facts will he use?



1. What are the parts?

3 and 8

2. What is the whole?

3. What are the addition facts that Josh will use?

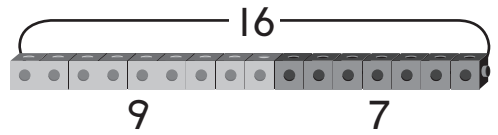
_____ + _____ = _____ and _____ + _____ = _____

4. What are the subtraction facts that Josh will use?

_____ - _____ = _____ and _____ - _____ = _____

Complete the fact families to solve.

5. Raj has the number cards 9, 7, and 16.
He wants to build a fact family using
his number cards. What related facts
will he use?



number
card

_____ + _____ = _____

_____ + _____ = _____

_____ - _____ = _____

_____ - _____ = _____

6. **Challenge** Brian has 8 yellow blocks and
some green blocks. He has 14 blocks in all.
Write the related facts for this fact family.



block

_____ + _____ = _____

_____ + _____ = _____

_____ - _____ = _____

_____ - _____ = _____

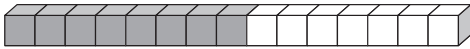
Algebra: Think Addition to Subtract

There are 15 grapes in a bowl.
Chandler eats 8 of the grapes.
How many grapes are left in the bowl?



1. Will you add or subtract to solve? subtract

2. Write the subtraction sentence.



Think: $8 + \square = 15$

$$\underline{\quad} - \underline{\quad} = \boxed{?}$$

3. Use a related addition fact to help you find the difference.

Since $\underline{\quad} + \underline{\quad} = \underline{\quad}$, then $\underline{\quad} - \underline{\quad} = \underline{\quad}$.

4. How many grapes are left in the bowl? $\underline{\quad}$ grapes

Solve. Think of the related addition fact to help you find the difference.

5. There are 16 flowers in Tim's garden. Tim picks 7 of the flowers to give to his mother. How many flowers are left in Tim's garden?

Think: $7 + \square = 16$



flower

$\underline{\quad}$ flowers

6. **Challenge** Ms. Witt puts 13 crackers on a plate. 9 crackers have cheese on them. How many crackers do not have cheese on them?

Think: $9 + \square = 13$



cracker

$\underline{\quad}$ crackers

Algebra: Missing Addends

Ann has 5 dimes. Her brother gives her some more dimes. Now Ann has 11 dimes. How many dimes does her brother give to her?



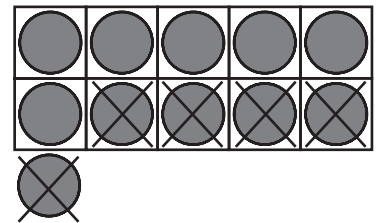
dime

1. Write a number sentence to show the missing addend.

$$\underline{5} + ? = \underline{11}$$

2. Write a related subtraction fact.

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$



3. Since $\underline{\quad} - \underline{\quad} = \underline{\quad}$, then $5 + \underline{\quad} = 11$.

The missing addend is $\underline{\quad}$.

4. How many dimes does Ann's brother give to her? $\underline{\quad}$ dimes

Solve. Use addition and a related fact to find the missing addend. Use a ten frame and counters if you need to.

5. There are some boats on the lake. Then 6 more boats join them. Now there are 15 boats on the lake. How many boats were on the lake to start?

Think:

$$\begin{array}{l} ? + 6 = 15 \\ 15 - 6 = ? \end{array}$$



boat

$\underline{\quad}$ boats

6. **Challenge** Dan picks 14 apples. 9 are red and the rest are green. How many green apples does Dan pick?

Think:

$$\begin{array}{l} 9 + ? = 14 \\ 14 - 9 = ? \end{array}$$



apple

$\underline{\quad}$ green apples



Use Context Clues

Vocabulary
context

The **context** of a word is the way it is used in a sentence. You can use the context of words in a problem to help you decide which operation to use.

Joe has 8 baseball cards.
He buys 4 more baseball cards.
How many baseball cards does he have now?



baseball card

Which words in the problem tell you which operation to use? Circle them.

How many baseball cards does Joe have to start?

8 cards

How many more baseball cards does he buy?

4 more cards

Think:
Joe **buys more** baseball cards.
You need to add.

Choose the operation.

Write a number sentence to solve.

8 \oplus 4 \ominus 12

Decide which operation to use.

Circle the words that help you know.

Write the number sentence. Solve.

1. Lila has 12 paper clips. She gives away 3 paper clips. How many paper clips does she have left?



paper clip

_____ \oplus _____ \ominus _____

_____ paper clips

2. Will has 8 rocks. He finds 7 more rocks. How many rocks does he have in all?



rock

_____ \oplus _____ \ominus _____

_____ rocks

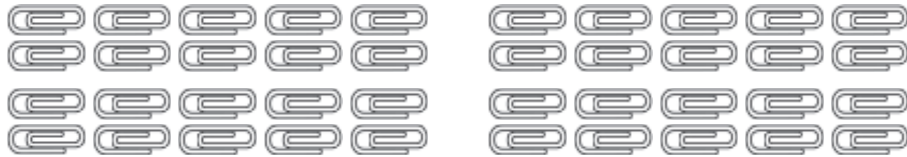
Tens

Brad has 40 paper clips.
He puts them in groups of 10.
How many groups does Brad make?



paper clip

1. How many paper clips does Brad have?



Brad has 40 paper clips.

2. How many tens equal 40 ones?
Circle all the groups of ten paper clips.

40 ones is the same as _____ tens.

3. How many groups does Brad make? _____ groups

Write how many ones and tens. Solve.

4. Dawn has 30 erasers. She puts them into boxes with 10 erasers in each box. How many boxes does she use?



eraser

_____ ones is the same as _____ tens.

_____ boxes

5. **Challenge** Sarah has 60 beads and 6 pieces of string. She puts the same number of beads on each string. How many beads does she put on each string?



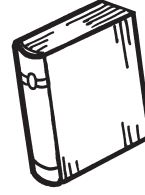
bead

_____ ones is the same as _____ tens.

_____ beads

Tens and Ones



Sasha has some books. She puts them into 6 boxes. Each box has 10 books. She has 4 books left over. How many books does she have in all?



book

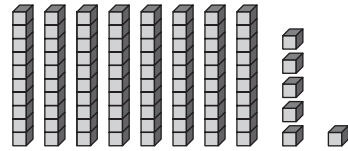
1. How many books are in each box?
 _____ 10 _____ books
2. How many boxes of books does Sasha have?
 _____ boxes
3. So, Sasha has _____ books in boxes.
4. How many books does Sasha have left over? _____ books
5. _____ books in boxes and _____ books left over is the same as _____ books in all.
6. How many books does Sasha have in all? _____ books

Find how many tens and ones. Solve.

7. Joy has 5 boxes of markers. Each box has 10 markers. She has 9 markers left over. How many markers does she have in all?

 marker
 _____ markers
8. **Challenge** Dora puts 36 rings into groups of tens and ones. How many tens and ones does she make?

 ring
 _____ tens _____ ones

Understand Place Value

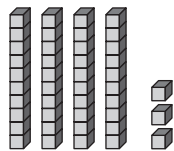
Sonia is thinking of a number.
Her number has 6 ones and 8 tens.
What number is Sonia thinking of?



- How many tens are in Sonia's number? 8 tens
- There are _____ tens or _____.
- How many ones are in Sonia's number? _____ ones
- There are _____ ones or _____.
- Put the tens and ones together. What number is Sonia thinking of? _____

Find the meaning of each digit. Write the number.

6. Greg is thinking of a number. His number has 3 ones and 4 tens. What number is he thinking of?



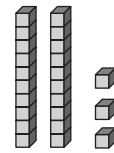
_____ tens _____ ones

7. **Challenge** Lily thinks of a number. Her number has the digits 5 and 7. The tens digit is greater than the ones digit. What number is Lily thinking of?

_____ tens _____ ones

Expanded Form

Scott builds this model. His model shows a number with tens and ones. What are three ways that Scott can write this number?

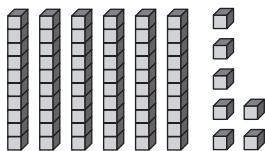


Scott's model

- How many tens are in the number? 2 tens
- How many ones are in the number? _____ ones
- So, one way to write this number is _____ tens _____ ones.
- What does the 2 in 23 mean? _____
- What does the 3 in 23 mean? _____
- So, another way to write this number is _____ + _____.
- Which digits do you use when you put the tens and ones together? _____ and _____
- So, a third way to write this number is _____.

Solve.

9. Randy builds this model. Write two ways to describe the meaning of the number that Randy's model shows.



$$67 = \text{_____ tens } \text{_____ ones}$$

$$67 = \text{_____} + \text{_____}$$

10. **Challenge** Natasha has 24 crayons. Her brother gives her 12 more crayons. Write two ways to describe the meaning of the number of crayons Natasha has now.

$$36 = \text{_____ tens } \text{_____ ones}$$

$$36 = \text{_____} + \text{_____}$$

Read and Write Numbers to 100

Mary is thinking of one of these numbers:

twenty-seven, seventy, or seventeen.

Her number has the digit 7 in the tens place.

Which number is Mary thinking of?

1. What are some other ways to write twenty-seven?

2 tens 7 ones | 20 + 7 | 27

2. What are some other ways to write seventy?

____ tens ____ ones | ____ + ____ | ____

3. What are some other ways to write seventeen?

____ ten ____ ones | ____ + ____ | ____

4. Which number has the digit 7 in the tens place? Circle it.

twenty-seven seventy seventeen

5. Which number is Mary thinking of? _____

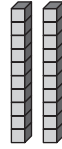
Solve.

6. Ted is thinking of one of these numbers: eight, eighteen, or eighty. His number has the digit 8 in the ones place and no tens. Which number is Ted thinking of?

7. **Challenge** Raul is thinking of one of these numbers: $60 + 6$, $60 + 0$, $40 + 6$. His number does not have the digit 6 in the tens place. Which number is Raul thinking of?

Different Ways to Show Numbers

Fred wants to make a model of 46.
He only has 2 tens blocks. How many
ones blocks will Fred need to make
his model?



- How many tens and ones are in 46? 4 tens 6 ones
- How many tens does Fred have? _____ tens
- How many more tens does he need? _____ tens
- How many ones are equal to the number of tens that Fred needs?
_____ ones = _____ tens
- Add the number of ones Fred needs to make
his tens and the number of ones in 46.
_____ ones + _____ ones = _____ ones
- How many ones blocks will Fred need? _____ ones blocks

Write how many tens or ones to solve.

Use   if you need to.

- | | |
|--|--|
| <p>7. Jed wants to model 58. He only has 4 tens blocks. How many ones blocks will Jed need to make his model?

_____ ones blocks</p> | <p>8. Challenge Pam makes a model of 75. She uses 35 ones blocks. How many tens blocks does Pam use?

_____ tens blocks</p> |
|--|--|



Reread

When you **reread** a problem, you read it again. Rereading can help you understand a question.

Ms. Gill brings some water bottles for the basketball team. About how many water bottles might Ms. Gill bring?



water bottle

about 9 water bottles

about 90 water bottles

Read the problem. What do you need to know?

about how many water bottles Ms. Gill might bring

Now reread the problem.

Who is Ms. Gill bringing the water bottles for?

the basketball team

THINK: There are about 9 or 90 people on a basketball team.

About how many water bottles might Ms. Gill bring?

about 9 water bottles

Circle the better estimate.

about 90 water bottles

Read and then reread the problem. Circle the better estimate.

1. Rob has some windows in his bedroom. About how many windows might he have?



window

about 2 windows

about 20 windows

2. Jada fills a book with stickers. About how many stickers might she use?



sticker

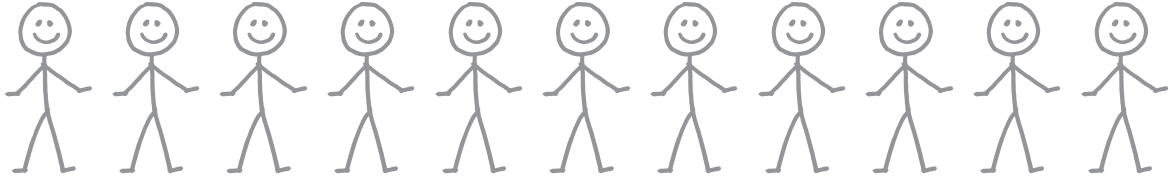
about 9 stickers

about 90 stickers

Ordinal Numbers

There are 11 people in line. Sharon is eleventh in line. René is just before Sharon. In which position is René?

1. Draw 11 people in line.



2. Label the first person in line.
3. Find Sharon. Draw an X on Sharon.
4. Draw a circle around René.
Then count to find her position in line.
5. In which position is René? _____

Solve. Draw a picture if you need to.

6. Jane lines up 8 of her toys.
She puts 5 toys in front of her doll.
In which position is the doll?



doll

7. **Challenge** Nine children line up to get on the bus. There are as many children before Eli as there are after him. In which position is Eli?



bus

Algebra: Compare Numbers: >, <, or =

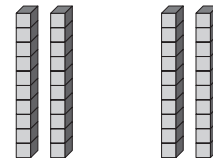
Mia has 27 buttons.
 Jon has 24 buttons.
 Compare to find who has more buttons.



button

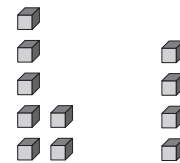
1. Compare the tens. Write >, <, or =.

_____ tens ○ _____ tens



2. Compare the ones. Write >, <, or =.

_____ ones ○ _____ ones



3. Compare the number of buttons they each have. _____ ○ _____

4. Who has more buttons? _____

Compare the numbers to solve.

5. Frank has 14 toy cars. Shane has 21 toy cars. Who has fewer toy cars?



toy car

_____ ○ _____

6. **Challenge** Marie has 35 crayons. Ali has 44 crayons. Jay has 10 fewer crayons than Ali. Does Marie or Jay have the greater number of crayons?



crayon

_____ ○ _____

Algebra: Order Numbers

Tom's classroom has 26 chairs.

Ali's classroom has 19 chairs.

Bill's classroom has 23 chairs.

Which classroom has the least number of chairs?



chair

- First, compare the numbers of chairs in Tom's classroom to the number of chairs in Ali's classroom. $\underline{26} > \underline{19}$
- Next, compare the number of chairs in Tom's classroom to the number of chairs in Bill's classroom. _____ ○ _____
- Then, compare the number of chairs in Ali's classroom to the number of chairs in Bill's classroom. _____ ○ _____
- Order the number of chairs from least to greatest. _____ ○ _____
least greatest
- Which classroom has the least number of chairs?
_____ classroom

Compare and order the numbers to solve.

- Karl, Mack, and Cara each have some cubes. Karl has 37 cubes. Mack has 50 cubes. Cara has 46 cubes. Who has the greatest number of cubes?
_____ ○ _____

- Challenge** Cody sold 45 red flowers and 42 yellow flowers. He sold 2 more white flowers than yellow flowers. Write how many white flowers Cody may have sold in the box to make this true.

$$42 < \square < 45$$

Round to the Nearest 10

There are 42 chairs in the library.
Are there about 40 or about
50 chairs in the library?



chair

1. Circle 42 on the number line.



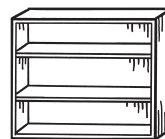
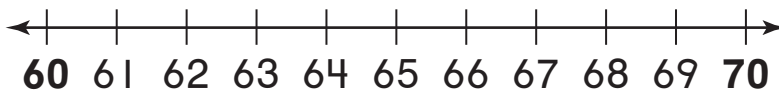
2. Draw jumps to the tens on both sides.
3. Which jump is closer? The jump to _____ is closer.

So, 42 rounds to _____.

4. Are there about 40 or about 50 chairs
in the library? about _____ chairs

Draw and compare the jumps. Round the number to
the nearest ten to solve.

5. There are 66 books on a shelf in the library. Are there
about 60 books or about 70 books on the shelf?



shelf

about _____ books

6. **Challenge** Rosa has some checkers. She puts
them into 8 piles. Each pile has 10 checkers. There
are also 7 checkers left over. About how many
checkers does she have?

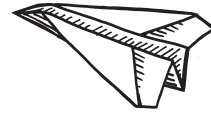


checker

about _____ checkers

Even and Odd Numbers

Elliott has 28 paper airplanes.
Is the number of paper airplanes
he has even or odd?



paper airplane

1. Use cubes to show 28 as tens and ones. Make pairs for the ones.
2. Draw what you build.
3. Are there any single ones left over?

4. Is the number of paper airplanes even or odd?

Use cubes to show the number as tens and ones.
Draw what you build. Write **even** or **odd** to solve.

5. There are 43 squirrels in the park. Is the number of squirrels in the park even or odd?



squirrel

6. **Challenge** There are 11 birds on the fence. Each bird has two wings. Is there an even or odd number of wings?



bird

Algebra: Patterns on a Hundred Chart

Joe skip-counts by threes. He draws a circle around each number he counts on the hundred chart.

Which number does Joe circle: 18, 19, or 20?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- Skip-count by threes. Circle the numbers Joe counts in the first row.
- Keep counting by threes until you have counted past the number 20.
- Look at the hundred chart. Did you circle 18, 19, or 20? _____
- Which number does Joe circle: 18, 19, or 20?

Skip-count. Show the pattern on the hundred chart to solve.

- Talia skip-counts by fives. She shades each square on the hundred chart for each number she counts. Which square does she shade: 33, 35, or 37?

- Challenge** Jim skip-counts by fours. Leo skip-counts by threes. Ed skip-counts by tens. They each circle the numbers on a hundred chart. Who circles the number 27?



Reread

When you **reread** a problem, you read it again.
Rereading can help you find information.

There are 6 clowns. Each clown has 3 balloons.
How many balloons do the clowns have in all?

Reread the problem to find the important information.

How many clowns are there?

6 clowns

How many balloons does each clown have?

3 balloons

Find the pattern. Complete the table to solve.

number of clowns	1	2	3	4	5	6
number of balloons	3	6	9	12	15	18

The clowns have 18 balloons in all.

Reread each problem. Complete the table to solve.

1. Jane has 5 shirts. Each shirt has 4 buttons.
How many buttons are there on all 5 shirts?

number of shirts	1	2	3	4	5
number of buttons	4	8	12		

There are _____ buttons on all 5 shirts.

2. Max draws 6 fish. Each fish has 5 stripes.
How many stripes are there on all 6 fish?

number of fish	1	2	3	4	5	6
number of stripes	5	10	15			

There are _____ stripes on all 6 fish.

Algebra: Number Patterns

Kristi skip-counts by twos.

She starts on 35.

Is the number 49 in Kristi's pattern?

1. Circle 35 on the hundred chart. Skip-count by twos to the end of the row. Circle the numbers in the pattern.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2. Continue to skip-count by twos until you have counted past 49. Circle the numbers in the pattern.

3. Look at the hundred chart. Did you circle 49?

4. Is the number 49 in Kristi's pattern?

Use the hundred chart. Extend the pattern to solve.

5. Gina skip-counts by fives. She starts her pattern with 41. Is the number 83 in her pattern?

6. **Challenge** Dan skip-counts by threes. If he starts at 44, what is the sixth number in Dan's pattern?

Mental Math: Add on Multiples of 10

Jordan has 55 marbles. He buys 20 more.
How many marbles does he have now?

- How many marbles does Jordan start with? 55 marbles
- How many marbles does he buy? _____ marbles
- Write a number sentence to find how many marbles in all.
_____ + _____ = ?
- Count on by tens to solve the number sentence.
55, _____, _____
- How many marbles does Jordan have now? _____ marbles

Count on to solve.

- Lisa has 38 building blocks. Then she finds 40 more. How many building blocks does she have now?



building block

_____ building blocks

- Challenge** Amy has 36 crayons. Her sister gives her 10 more. Then her mother gives her some. Now she has 66 crayons. How many crayons did Amy's mother give her?



crayon

_____ crayons


Regrouping for Addition

Tasha has 38 raisins. Alex gives her 7 more raisins. How many raisins does Tasha have now?



raisin

38 raisins

1. How many raisins does Tasha start with? _____ raisins
2. How many raisins does Alex give her? _____ raisins
3. Use Workmat II and  to show the raisins Tasha starts with and the raisins Alex gives her.
4. Look at the ones. Can you make a ten? _____
5. Will you regroup? _____
6. Count the tens and ones.
_____ tens _____ ones is the same as _____.
7. How many raisins does Tasha have now? _____ raisins

Use Workmat II and  to solve.



dime

8. Lila has 17 dimes in her coin bank. Her brother gives her 6 more dimes. How many dimes does she have now?
_____ dimes

9. **Challenge** Charlie has 28 stamps. Alex has 5 more stamps than Charlie. Brian has 9 more stamps than Alex. How many stamps does Brian have?



stamp



_____ stamps

Model 2-Digit Addition

Jared collected 15 leaves on a walk.
Kaya collected 26 leaves on the walk.
How many leaves did they collect together?



leaf

1. How many leaves did Jared collect? 15 leaves
2. How many leaves did Kaya collect? _____ leaves
3. Use Workmat 11 and   to show the leaves collected by Jared and Kaya.
4. Look at the ones. Can you make a ten? _____
5. Will you regroup? _____
6. Count the tens and ones.
_____ tens _____ ones is the same as _____.
7. How many leaves did they collect in all? _____ leaves

Use Workmat 11 and   to solve.

8. Mike sees 48 bats under one bridge.
He sees 26 bats under another bridge.
How many bats does he see in all?



bat

_____ bats

9. **Challenge** Tristan counts 25 ants in his ant farm. Bob counts 18 ants in his farm. Kyle counts 20 ants in his farm. How many ants do they count in all?



ant

_____ ants



Sequence

Vocabulary
sequence

A **sequence** shows an order in which things happen.

There are 25 ants in the anthill.
 (Then) 19 more ants come.
 How many ants are there (now)?



What are the words in the problem that tell you about the sequence? Circle them.

Make a model to solve the problem.

Workmat		Workmat		Workmat	
Tens	Ones	Tens	Ones	Tens	Ones

Count the tens and ones.

4 tens 4 ones

How many ants are there now?

44 ants

Circle the words that tell about the sequence. Make a model to solve.

- Paula starts with 36 crayons. Then her friend gives her 17 more crayons. How many crayons does Paula have now?



_____ crayons

- Bruce buys 42 paper clips on the first day of school. The next day, he buys 29 paper clips. How many paper clips does Bruce have now?




_____ paper clips

Model and Record 2-Digit Addition

Katie skips 26 stones on the pond.
Brynn skips 29 stones. How many
stones do they skip together?



stone

- How many stones does Katie skip? 26 stones
- How many stones does Brynn skip? _____ stones
- Use Workmat 3 and  to show the stones Katie skipped and the stones Brynn skipped.

- Count the ones.
Regroup if you need to.
Write them in the ones place.

	Tens	Ones
	<input type="text"/>	
	2	6
+	2	9
-		

- Count the tens.
Write them in the tens place.
- Look at the sum.
How many stones do they skip together? _____ stones

Use Workmat 3 and  to solve.

- There are 18 frogs in the pond. There are 26 frogs in the grass. How many frogs are there in all?

_____ frogs

	Tens	Ones
	<input type="text"/>	
+		
-		

- Challenge** Miranda saw 25 dragonflies on Monday. She saw 3 more dragonflies on Tuesday than on Monday. How many dragonflies did she see in all?

_____ dragonflies



	Tens	Ones
	<input type="text"/>	
+		
-		

2-Digit Addition

There are 27 lizards sleeping in the field.
 There are 18 lizards playing in the field.
 How many lizards are in the field?



lizard

- How many lizards are sleeping?
- How many lizards are playing?
- Use Workmat 3 and   to show the lizards that are sleeping and the lizards that are playing.

27 lizards

_____ lizards

- Count the ones.
 Regroup if you need to.
 Write them in the ones place.

	Tens	Ones
	<input type="text"/>	
	2	7
+	1	8
<hr/>		

- Count the tens.
 Write them in the tens place.

- Look at the sum.
 How many lizards are in the field?

_____ lizards

Use Workmat 3 and   to solve.

- Sadie finds 24 seashells at the beach.
 Taylor finds 37 seashells at the beach.
 How many seashells do they find in all?

	Tens	Ones
	<input type="text"/>	
	2	4
+	3	7
<hr/>		

_____ seashells

- Challenge** Bobby has 26 stickers.
 Alice has 8 more stickers than Bobby.
 Theo has 12 more stickers than Alice.
 How many stickers does Theo have?

	Tens	Ones
+		
<hr/>		

_____ stickers

Add 2-Digit Numbers

Nina plays 18 soccer games.
 Danny plays 16 soccer games.
 How many soccer games do they play in all?



soccer ball

1. How many soccer games does Nina play? 18 soccer games
2. How many soccer games does Danny play? _____ soccer games

3. Add the number of soccer games Nina plays and the number of soccer games Danny plays. Regroup if you need to.

		Tens	Ones
		<input type="text"/>	
			8
+			6

4. How many soccer games do they play in all? _____ soccer games

Add to solve. Regroup if you need to.

5. Mia has 24 marbles.
 Gus has 18 marbles.
 How many marbles do they have in all?

		Tens	Ones
		<input type="text"/>	
		2	4
+		1	8

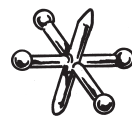


marble

_____ marbles

6. **Challenge** Derek has 35 jacks. Jamie has 3 more jacks than Derek. How many jacks do they have in all?

		Tens	Ones
		<input type="text"/>	
+			



jack

_____ jacks

Practice 2-Digit Addition

Jamie collected 14 baseballs. Alex collected 18 baseballs. How many baseballs did Jamie and Alex collect in all?



baseball

1. How many baseballs did Jamie collect?

14 baseballs

2. How many baseballs did Alex collect?

_____ baseballs

3. Write and solve the addition problem to find the answer. Regroup if you need to.

Tens	Ones
□	
+	

4. How many baseballs did Jamie and Alex collect in all?

_____ baseballs

Add to solve. Regroup if you need to.

5. Julia has 24 gears on her bike. Jason has 25 gears on his bike. How many gears do both bikes have in all?

Tens	Ones
□	
+	



bike

_____ gears

6. **Challenge** Karin scores 19 points in a basketball game. Maria scores 2 fewer points than Karin. How many points do they score in all?

Tens	Ones
□	
+	



basketball

_____ points

Rewrite 2-Digit Addition

Angie passes the soccer ball 23 times in the first half of the game. She passes the soccer ball 29 times in the second half of the game.

How many times does she pass the soccer ball?



soccer ball

1. Write the number sentence to find how many times Angie passes the soccer ball. $\underline{23} + \underline{29} = ?$

2. Rewrite the numbers.
Then add to solve.

+	

3. How many times does Angie pass the soccer ball? _____ times

Rewrite the numbers. Then add to solve.

4. Mark has 37 football stickers and 29 baseball stickers. How many stickers does he have in all?

+	



sticker

_____ stickers

5. **Challenge** José scores 11 points in the first half of the game. He scores twice as many points in the second half of the game. How many points does José score in all?

+	



basketball

_____ points

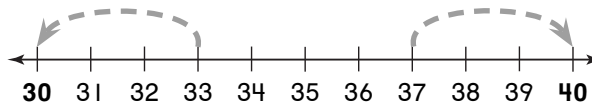
Estimate Sums

Regan has 33 first place ribbons.
 He has 37 second place ribbons.
 About how many ribbons does he have in all?



ribbon

- Estimate to find about how many.
 Round each addend to the nearest ten.



33 is closer to 30.

37 is closer to 40.

- Add the rounded numbers.

$$\begin{array}{r}
 33 \rightarrow \square \\
 + 37 \rightarrow + \square \\
 \hline
 \square
 \end{array}$$

- About how many ribbons does Regan have in all? about _____ ribbons

Round each addend to the nearest ten.
 Find the estimated sum.



- Jill reads 37 pages on Tuesday. She reads 42 pages on Friday. About how many pages does she read?

$$\begin{array}{r}
 37 \rightarrow \square \\
 + 42 \rightarrow + \square \\
 \hline
 \square
 \end{array}$$

about _____ pages

- Challenge** Mrs. Britt baked about 40 muffins on Sunday. List the numbers of muffins she could have baked.

More 2-Digit Addition

Jack does 48 sit-ups to warm up for track practice. He does 27 sit-ups to cool down after practice. How many sit-ups does he do in all?

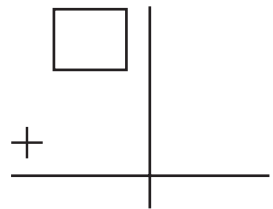


sit-up

48 sit-ups

_____ sit-ups

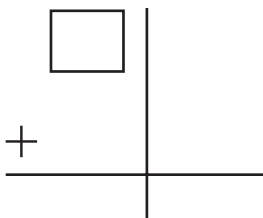
- How many sit-ups does Jack do to warm up?
- How many sit-ups does Jack do to cool down?
- Write and solve the addition problem to find the answer.



- How many sit-ups does Jack do in all? _____ sit-ups

Add to solve. Regroup if you need to.

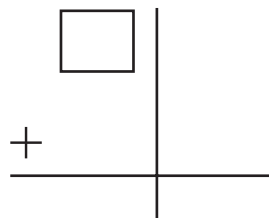
- Marta scores 23 points in one basketball game and 18 points in another basketball game. How many points did she score in all?



basketball

_____ points

- Challenge** Coach Jenkins has 17 red jump ropes. He has 5 more blue jump ropes than red jump ropes. How many jump ropes does he have in all?



jump rope

_____ jump ropes



Use Graphic Aids

A **graphic aid** is a picture, chart, or table that contains information. Graphic aids can help you solve problems.

Vocabulary
graphic aids

The table shows the number of foul balls in some baseball games. How many foul balls were there in Game 2 and Game 3?

Foul Balls in Baseball Games	
Game	Number of Foul Balls
1	16
2	25
3	27

1. How can the graphic aid help you solve the problem?

The table shows how many foul balls there were in each game.

2. How many foul balls were there in Game 2? 25 foul balls

3. How many foul balls were there in Game 3? 27 foul balls

$$\begin{array}{r} 25 \\ + 27 \\ \hline 52 \end{array}$$

4. Write and solve the addition problem to find the answer.

There were 52 foul balls in Game 2 and Game 3.

Use the table above to solve.

5. How many foul balls were in Game 1 and Game 2?

_____ foul balls

6. How many foul balls were in Game 1 and Game 3?

_____ foul balls

Algebra: Break Apart Numbers to Add

There are 33 boys on the swim team.

There are 39 girls on the swim team.

How many children are on the swim team in all?

1. Break apart the addends into tens and ones.

$$\begin{array}{r} \underline{33} \\ \swarrow \quad \searrow \\ 30 \quad 3 \end{array} + \begin{array}{r} \underline{39} \\ \swarrow \quad \searrow \\ 30 \quad 9 \end{array} = ?$$

$$\underline{30} + \underline{3} + \underline{30} + \underline{9}$$

2. Add the tens. $\underline{\quad} + \underline{\quad} = \underline{\quad}$
3. Add the ones. $\underline{\quad} + \underline{\quad} = \underline{\quad}$
4. How many in all? $\underline{\quad} + \underline{\quad} = \underline{\quad}$

So, $33 + 39 = \underline{\quad}$.

5. How many children are on the swim team in all? $\underline{\quad}$ children

Break apart the addends to find the sum and solve.

6. Paul sold 23 drinks before the game. He sold 38 drinks during the game. How many drinks did he sell in all?

$$\begin{array}{r} \underline{\quad} \\ \swarrow \quad \searrow \\ \underline{\quad} \quad \underline{\quad} \end{array} + \begin{array}{r} \underline{\quad} \\ \swarrow \quad \searrow \\ \underline{\quad} \quad \underline{\quad} \end{array} = ?$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$\underline{\quad}$ drinks

7. **Challenge** Scott has 13 ribbons. Nathan has double the number of ribbons that Scott has. How many ribbons do the boys have together?

$$\begin{array}{r} \underline{\quad} \\ \swarrow \quad \searrow \\ \underline{\quad} \quad \underline{\quad} \end{array} + \begin{array}{r} \underline{\quad} \\ \swarrow \quad \searrow \\ \underline{\quad} \quad \underline{\quad} \end{array} = ?$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

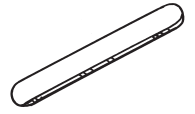
$\underline{\quad}$ ribbons

Mental Math: Subtract Multiples of 10

Evie has 47 craft sticks.

She gives Hanna 30 craft sticks.

How many craft sticks does Evie have now?



craft stick

- How many craft sticks does Evie start with? 47 craft sticks
- How many craft sticks does Evie give to Hanna?
_____ craft sticks
- Write a number sentence to show the problem.
_____ - _____ = ?
- Start with 47. Count back by tens to solve.
47, _____, _____, _____ So, $47 - 30 =$ _____.
- How many craft sticks does Evie have now? _____ craft sticks

Count back tens to solve.

- Mr. Lasky has 41 glue sticks in a box. He takes out 20 glue sticks for his class. How many glue sticks are left in the box?



glue stick

_____ glue sticks

- Challenge** Tara has 56 stickers. She gives some stickers to her brother. She has 26 stickers. How many stickers does Tara give to her brother?



stickers

THINK: $56 - ? = 26$

_____ stickers

Regrouping for Subtraction

Erin has 24 pieces of chalk.

She gives 9 pieces of chalk to Brad.

How many pieces of chalk does Erin have now?

1. How many pieces of chalk does Erin start with?

24 pieces of chalk

2. How many pieces of chalk does Erin give to Brad?

_____ pieces of chalk

3. What will you subtract? Subtract _____ from _____.

4. Use Workmat II and  

to subtract. Regroup if you need to. Write how many tens and ones.

_____ tens _____ ones

Write the difference.

5. How many pieces of chalk does Erin have now?

_____ pieces of chalk

Use Workmat II and   to solve.

6. Erika has 37 erasers. She gives her sister 8 erasers. How many erasers does she have now?



eraser

_____ erasers

7. **Challenge** Ben has 44 sheets of paper. Sandy has 9 fewer sheets than Ben. How many sheets of paper does Sandy have?



paper

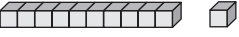
_____ sheets of paper

Model 2-Digit Subtraction

Ellen has 31 pencils.
She gives 17 pencils to Susie.
How many pencils does Ellen have now?



pencil

- How many pencils does Ellen have to start with? 31 pencils
- How many pencils does Ellen give to Susie? _____ pencils
- Write a number sentence to show the problem. _____ - _____ = ?
- Use Workmat 11 and  to subtract. Regroup if you need to. Write how many tens and ones. Write the difference. _____ tens _____ ones

- How many pencils does Ellen have now? _____ pencils

Use Workmat 11 and  to solve.

- | | |
|---|--|
| <p>6. Darin has 42 star stickers. He gives 19 star stickers to Raven. How many star stickers does Darin have now?</p> <p style="text-align: right;">_____ star stickers</p> | <p>7. Challenge Shawna has 56 felt squares. She uses 29 of these squares to make a pattern. How many felt squares does Shawna have left?</p> <p style="text-align: right;">_____ felt squares</p> |
|---|--|



Paraphrase

Vocabulary
paraphrase

To **paraphrase** means to say something in your own words. Paraphrasing a question can help you understand it better.

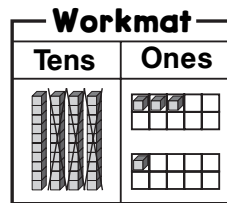
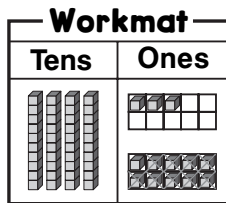
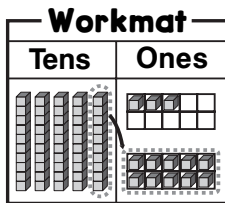
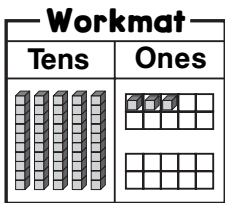


Jon has 53 crayons. He counts 39 broken crayons. How many of Jon's crayons are not broken?

Paraphrase the problem in your own words.

Out of Jon's 53 crayons, 39 of them are broken. How many are not broken?

Make a model to solve the problem.



Count the tens and ones.

1 ten 4 ones

How many of Jon's crayons are not broken?

14 crayons

Read and then paraphrase the problem.

Use Workmat II and to make a model. Solve.

1. Beth has 41 beads. She uses 25 beads to make a bracelet. How many beads does Beth have left?



bead

_____ beads

2. Kirk has 56 red pens. He has 17 green pens. How many more red pens does he have than green pens?



pen

_____ more red pens

Model and Record 2-Digit Subtraction

Tina has 25 felt squares. She uses 8 felt squares for a project. How many felt squares does Tina have left?





felt square

25 felt squares

- How many felt squares does Tina have?
- How many felt squares does Tina use?
- Use the chart to write the subtraction problem.

_____ felt squares

- Subtract. Use Workmat 3 and   if you need to.

Tens	Ones
□	□
—	

- How many felt squares does Tina have left? _____ felt squares

Solve. Use Workmat 3 and   if you need to.

- Tim has 33 rubber stamps in all. He has 7 rubber stamps of rabbits. How many rubber stamps are not of rabbits?



rubber stamp

_____ rubber stamps

- Challenge** Miguel has 56 stencils. He uses all but 9 of his stencils. How many stencils does Miguel use?



stencil

_____ stencils

Subtract 2-Digit Numbers

There are 43 paint bottles on a shelf.
 Jesse takes 15 bottles off the shelf.
 How many paint bottles are left on the shelf?



paint bottle

43 paint bottles



1. How many paint bottles are on the shelf?

2. How many paint bottles does Jesse take off the shelf?



_____ paint bottles

3. Use the chart to write the subtraction problem.

Tens	Ones
□	□
—	
—	

4. Subtract. Draw   if you need to.

5. How many paint bottles are left on the shelf? _____ paint bottles

Solve. Draw   if you need to.

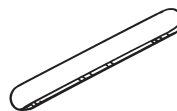
6. There are 35 crayons in a bin. Willy puts 19 of these crayons in a cup. How many crayons are in the bin now?



crayon

_____ crayons

7. **Challenge** Betsy has 57 craft sticks. She gives 14 sticks to Eli and 14 sticks to Liza. How many craft sticks does Betsy have now?



craft stick

_____ craft sticks

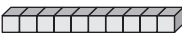

2-Digit Subtraction

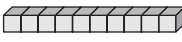

Jane has 43 toy animals. Dan has 27 toy animals. How many fewer toy animals does Dan have than Jane?



toy animal

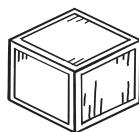
Tens	Ones
3	13
4	3
— 2	7

- Use Workmat 3 and  . Subtract.
- Show 43. Are there enough ones to subtract? _____
- Regroup 1 ten as 10 ones to make _____ ones.
- Subtract the ones. Then subtract the tens.
- How many fewer toy animals does Dan have than Jane? _____ fewer toy animals

Use Workmat 3 and  . Subtract to solve.

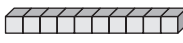

- Alex has 65 blocks. He uses 38 of the blocks to build a tower. How many blocks are left?

Tens	Ones
□	□
6	5
— 3	8



block

_____ blocks

- Challenge** Tammy has 30 coins. She gives half of the coins to Tia. Draw   to show the coins that Tammy has left.

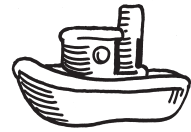


coin

_____ coins

Practice 2-Digit Subtraction

Sasha has 31 toy boats. Maria has 18 toy boats. How many more toy boats does Sasha have than Maria?



toy boat

1. Subtract. Regroup if you need to.
2. How many more toy boats does Sasha have than Maria?

_____ more toy boats

Tens	Ones
2	1
3	1
- 1	8
<hr/>	

3. Claire has 41 marbles. Sadie has 25 marbles. How many more marbles does Claire have than Sadie?

Tens	Ones
<input type="text"/>	<input type="text"/>
4	1
- 2	5
<hr/>	



marble

_____ marbles

4. **Challenge** Jordy solved the problem below. His sister says the answer is incorrect. Help Jordy correct his answer.

Tens	Ones
1	11
2	0
- 1	1
<hr/>	
	10

The correct answer is _____.

Rewrite 2-Digit Subtraction

Ellie has 42 jacks. Mark has 28 jacks.
How many more jacks does Ellie have than Mark?



1. Write the number sentence to solve the problem.
2. Rewrite the numbers.
Then subtract.
3. How many more jacks does Ellie have than Mark?
_____ more jacks

$$\underline{42} - \underline{28} = ?$$

Tens	Ones
□	□
—	

Rewrite the numbers. Then subtract.

4. Sherry has 37 puppets.
Tom has 18 puppets.
How many more puppets does Sherry have than Tom?

Tens	Ones
□	□
—	



_____ more puppets

5. **Challenge** Ron has 31 toy trucks. Jun has 3 fewer toy trucks than Ron. How many toy trucks does Jun have?

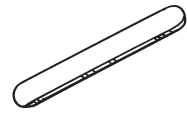
Tens	Ones
□	□
—	



_____ toy trucks

More 2-Digit Subtraction

Marta uses 62 craft sticks for a project.
Jamie uses 49 craft sticks. How many
more craft sticks does Marta use than Jamie?



craft stick

1. Look at the ones.
Regroup if you need to.
Then subtract.

$$\begin{array}{r} 5 \cancel{1} 2 \\ - 49 \\ \hline \end{array}$$

2. How many more craft sticks
does Marta use than Jamie?

_____ more craft sticks

Subtract. Regroup if you need to.

3. Beth has 55 toy
dinosaurs. Andy has
39 toy dinosaurs. How
many more toy dinosaurs
does Beth have than Andy?

$$\begin{array}{r} 55 \\ - 39 \\ \hline \end{array}$$



toy dinosaur

_____ more toy dinosaurs

4. **Challenge** Cooper
solved the problem below,
but his dog ripped holes in
his paper. What numbers
are missing?

Evan has 57 marbles.
He has 28 more marbles
than Amy. How many
marbles does Amy have?

$$\begin{array}{r} \square 17 \\ - \cancel{5} \cancel{7} \\ \hline - \square 8 \\ \hline 2 \square \end{array}$$



marble

_____ marbles

Use Addition to Check Subtraction

Annie has 45 puzzle pieces. She gives 29 puzzle pieces to Steven. How many puzzle pieces does Annie have left?



puzzle piece

1. Look at the ones.
Regroup if you need to.
Then subtract.

2. Add to check.
Add the number above
the difference to the
difference.

3. How many puzzle pieces
does Annie have left?


$\begin{array}{r} 315 \\ 45 \\ - 29 \\ \hline \end{array}$	\swarrow	<table style="border-collapse: collapse;"> <tr><td style="border: 1px solid black; width: 40px; height: 30px;"></td></tr> <tr><td style="text-align: center;">+</td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 30px;"></td></tr> <tr><td style="border-top: 1px solid black; border: 1px solid black; width: 40px; height: 30px;"></td></tr> </table>		+		
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_____ puzzle pieces

Subtract. Add to check.

4. Liz has 57 beads. She gives 18 beads to Anthony. How many beads does she have left?

$\begin{array}{r} 57 \\ - 18 \\ \hline \end{array}$	\swarrow	<table style="border-collapse: collapse;"> <tr><td style="border: 1px solid black; width: 40px; height: 30px;"></td></tr> <tr><td style="text-align: center;">+</td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 30px;"></td></tr> <tr><td style="border-top: 1px solid black; border: 1px solid black; width: 40px; height: 30px;"></td></tr> </table>		+		
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bead

_____ beads

5. **Challenge** Eric has 25 pens. He gives some pens to Stella. Eric has 12 pens left. How many pens did he give to Stella?

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pen

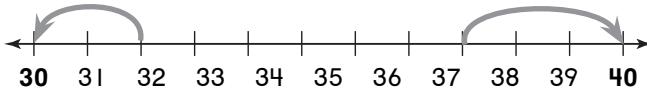
_____ pens

Estimate Differences

Megan has 37 jacks. Sharel has 32 jacks. About how many more jacks does Megan have than Sharel?



1. Estimate to find about how many jacks. Round each number to the nearest ten.



32 is closer to 30.

37 is closer to 40.

2. Subtract the rounded numbers.

$$\begin{array}{r}
 37 \rightarrow \quad \square \\
 - 32 \rightarrow \quad - \square \\
 \hline
 \square
 \end{array}$$

3. About how many more jacks does Megan have than Sharel?

about _____ more jacks

Round each number to the nearest ten. Find the estimated difference.



4. Brian has 46 stickers. David has 31 stickers. About how many more stickers does Brian have than David?

$$\begin{array}{r}
 46 \rightarrow \quad \square \\
 - 31 \rightarrow \quad - \square \\
 \hline
 \square
 \end{array}$$

about _____ more stickers

5. **Challenge** Justin has 42 pennies. Tina has about 20 fewer pennies than Justin. Which could be the number of pennies Tina has? Circle your answer.

26 19 14

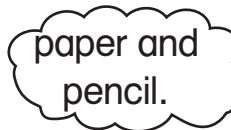


Reread

When you **reread**, you read again. You can reread problems to find information.

There are 46 blocks in a box and 29 blocks on the table.
How many more blocks are in the box than on the table?

To solve the problem you can use:



1. Reread the problem. Circle the information needed to solve the problem.
2. Choose a method and solve.

$$\begin{array}{r} 3\ 16 \\ 46 \\ - 29 \\ \hline 17 \end{array}$$

3. There are 17 more blocks on the table.

Choose a method and solve.

4. Drew has 50 crayons. He gives 20 crayons to Jack. How many crayons does Drew have left?



crayon

_____ crayons

5. Alisha has 45 roses. Nita has 26 fewer roses than Alisha. How many roses does Nita have?



rose

_____ roses

Mental Math: Find Differences

Joe has 52 stickers. He gives 27 stickers to his sister. How many stickers does he have now?



sticker

1. Look at the smaller number. Add more to make the smaller number a ten.

$$52 - 27 = ?$$

2. Add that number to both numbers.

$$\begin{array}{r} 52 - 27 \\ + 3 \quad + 3 \\ \hline 55 - 30 \end{array}$$

3. Subtract.

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

$$\text{So, } 52 - 27 = \underline{\quad}$$

4. How many stickers does Joe have now? _____ stickers

Use mental math to find the difference.

5. Emma has a box that holds 48 crayons. There are 29 crayons in the box. How many crayons are missing from the box?

$$\begin{array}{r} 48 - 29 \\ + \quad + \\ \hline \quad - \quad \\ \hline \quad - \quad = \quad \end{array}$$

$$\text{So, } 48 - 29 = \underline{\quad}$$

_____ crayons are missing

6. **Challenge** Bob has 62 straws. Cole has 38 fewer straws than Bob. How many straws does Bob have?

$$\begin{array}{r} 62 - 38 \\ + \quad + \\ \hline \quad - \quad \\ \hline \quad - \quad = \quad \end{array}$$

$$\text{So, } 62 - 38 = \underline{\quad}$$

_____ straws

Mixed Practice

1. Eliza has 24 buttons. Paul gives her 17 more buttons. How many buttons does Eliza have now?

$$\begin{array}{r} 24 \\ + 17 \\ \hline 41 \end{array}$$

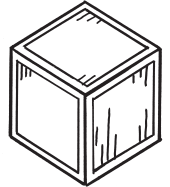


button

Eliza has _____ buttons now.

2. Bill has 36 cubes. He gives some to Zeke. Now he has 19 cubes. How many cubes does Bill give to Zeke?

$$\begin{array}{r} 36 \\ - 19 \\ \hline \end{array}$$



cube

Bill gives Zeke _____ cubes.

Add or subtract to solve.

3. There are 32 red checkers in a bag. There are 17 black checkers in the bag. How many checkers are in the bag?

$$\begin{array}{r} 32 \\ + 17 \\ \hline \end{array}$$

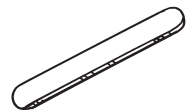


checker

_____ checkers

4. **Challenge** Miranda has 24 craft sticks. She gives half of her craft sticks to Carla. Miranda has 12 craft sticks left. How many craft sticks did she give to Carla?

$$\begin{array}{r} 24 \\ - \square \\ \hline 12 \end{array}$$



craft stick

_____ craft sticks

Take a Survey

Claire took a survey of her friends' favorite games. The tally table shows the results. Did more children choose chess or checkers?

Favorite Game	
Game	Tally
checkers	
backgammon	
chess	

- Look at the row for chess. Count the tally marks. How many children chose chess? 6 children
- Look at the row for checkers. Count the tally marks. How many children chose checkers? _____ children
- Compare the numbers.
- Did more children choose chess or checkers? _____

- Grace takes a survey of her friends' favorite juices. The tally table shows the results. Did more children choose apple juice or orange juice?

Favorite Juice	
Juice	Tally
orange	
apple	
tomato	

- Challenge** Michael asked 15 friends which bird is their favorite. Nine children chose eagle and four children chose hawk. How many children did not choose eagle or hawk?

_____ children



Use Graphic Aids

Graphic aids show data that has been collected. They can help you compare information.

Vocabulary
graphic aid

Josie measured the height of her plant once a week for four weeks. She recorded the plant's height every week. How much did the plant grow between April 3 and April 10?

Height of Plant	
Date	Height
April 3	6 inches
April 10	9 inches
April 17	11 inches
April 24	12 inches

Use the graphic aid above to find the information.

How tall is the plant on April 3?

6 inches

How tall is the plant on April 10?

9 inches

What is the difference in height between April 3 and April 10?

$$\underline{9} - \underline{6} = \underline{3}$$

How much does the plant grow between April 3 and April 10?

3 inches

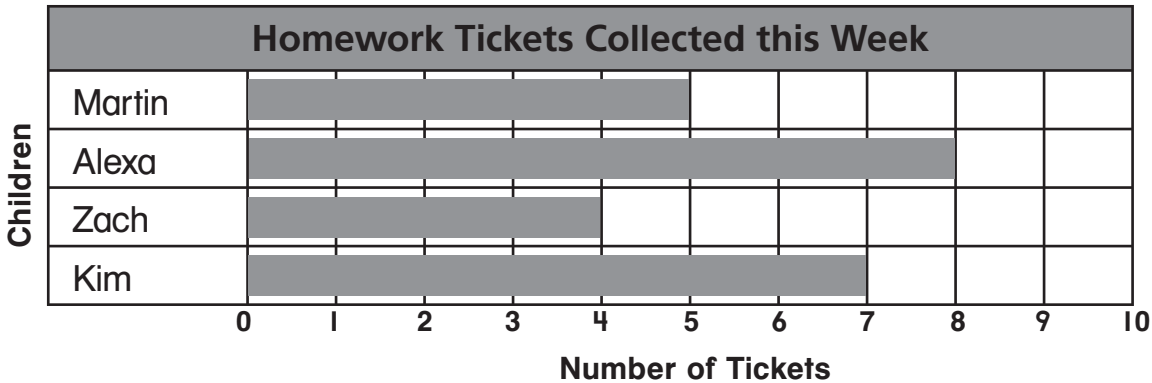
Use the table above to answer the questions.

1. How many inches does the plant grow between April 3 and April 24? _____

2. Between which two dates does the plant grow the least amount?

between _____ and _____

Read a Bar Graph



Which child collected twice as many tickets as Zach?

1. How many tickets did Zach collect?

4 tickets

2. What is twice that number?

Write a number sentence to find out.

_____ ○ _____ ○ _____

3. Look at the bar graph.

Who collected that number of tickets?

4. Who collected twice as many tickets as Zach?

Use the bar graph above to answer the question.

5. Who collected two fewer tickets than Kim?

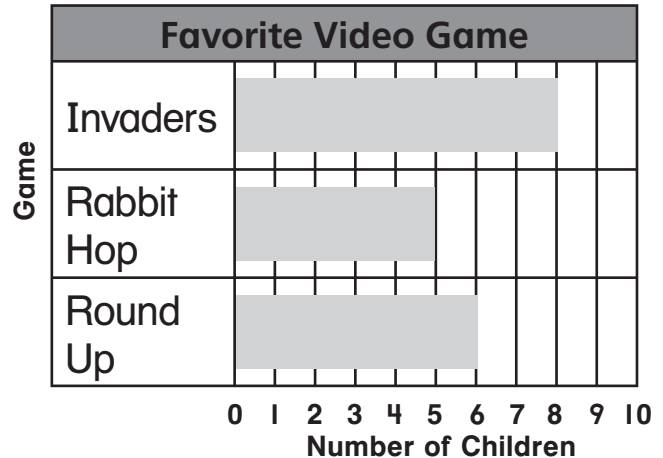
6. **Challenge** If each child collected two more tickets this week, how many tickets would they have collected altogether?

_____ tickets

Make a Bar Graph

Brian used the table to make a bar graph.
He was not able to complete it.
Help Brian by completing the bar graph.

Favorite Video Game	
Game	Number
Invaders	8
Rabbit Hop	5
Round Up	6







- Look at the table. Find Round Up.
How many children chose Round Up? 6 children
- Look at the bar graph. Find Round Up.
Draw a bar and shade it from 0 to the number.

Use the table and the bar graph above.






- Brian left off data for 3 friends. Two more children chose Invaders and one more child chose Round Up. Change the table and the bar graph to show this data.
- Challenge** How many more children would have to choose Rabbit Hop for Rabbit Hop to be chosen by the greatest number of children?
 more children

Pictographs

Sloane surveyed 30 friends to find out their favorite animal. She forgot to record the data for giraffe. How many children chose giraffe? Complete the pictograph to show your answer.

Favorite Animal					
giraffe					
panda					
elephant					

Key: Each  stands for 5 children.

- How many children does each  stand for? 5 children
- How many children chose panda? _____ children
- How many children chose elephant? _____ children
- How many children did not choose giraffe? Write a number sentence to find out. _____  _____  _____ children
- How many children chose giraffe? Write a number sentence to find out. Then complete the pictograph. _____  _____  _____ children

Use the pictograph above to answer the question.

- How many more children chose panda than elephant?

_____ more children

- Challenge** Sloane surveyed 15 more friends. Ten of them chose giraffe. None of them chose panda. How many children in all chose elephant in both surveys?

_____ children

Locate Points on a Grid

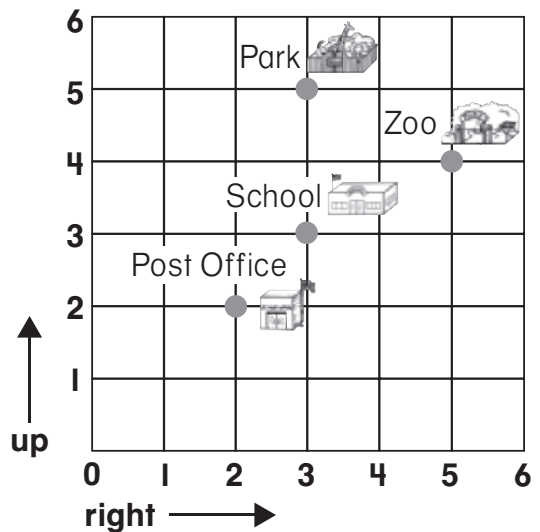
Kate wants to go to the Post Office. Neil says to start at 0, go right 3, and go up 3. Drew says to start at 0, go right 2, and go up 2. Whose directions will get Kate to the Post Office?

- Follow Neil's directions. Put your finger on 0. Go right 3. Go up 3. Where are you?

- Follow Drew's directions. Put your finger on 0. Go right 2. Go up 2. Where are you?

- Whose directions will get Kate to the Post Office?

_____ directions



Use the grid. Follow directions.

- Drew wants to go to the Zoo. Kate says to start at 0, go right 5, and up 4. Neil says to start at 0, go right 3, and up 3. Whose directions will get Drew to the Zoo?

_____ directions

- Challenge** What directions would Neil follow to go to the Park?

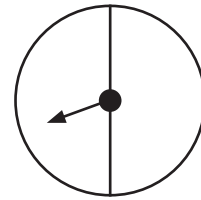
Start at _____.

Go right _____.

Go up _____.

Certain or Impossible

Celia spins the pointer.
The spin will be white. Is this event certain or impossible?



1. Look at the spinner. What are the possible results of this event?

white and white

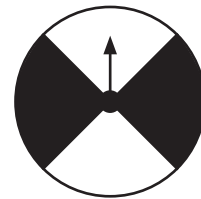
2. Circle **certain** or **impossible** to predict the event.

certain impossible

Write **certain** or **impossible** to predict each event.

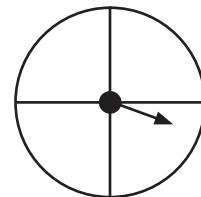
3. Russ spins the pointer.
The spin will be red.

This event is _____.

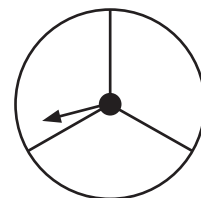


4. Tanner spins the pointer.
The spin will be white.

This event is _____.

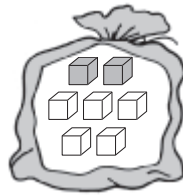


5. **Challenge** Color the spinner so that blue is an impossible event.

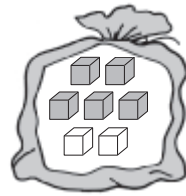


More Likely or Less Likely

Two bags have some gray cubes and some white cubes inside. From which bag are you more likely to choose a gray cube?



Bag 1



Bag 2

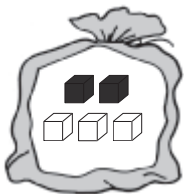
- How many gray cubes are in Bag 1?
- How many gray cubes are in Bag 2?
- Are there more gray cubes in Bag 1 or in Bag 2?
- From which bag are you more likely to choose a gray cube?

2 gray cubes

_____ gray cubes

Solve.

- Ava and Madeline have bags filled with cubes. From which bag are you less likely to choose a black cube? Circle the better choice.



Ava's Bag



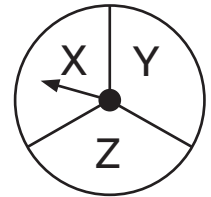
Madeline's Bag

- Challenge** There are 9 cubes in a bag. Three of the cubes are gray. The rest of the cubes are white. Are you more likely to choose a gray cube or a white cube?

Outcomes

Katrina spins the pointer 8 times. She records the outcomes in the tally table for X and Z, but did not finish. How many times does the pointer land on Y?

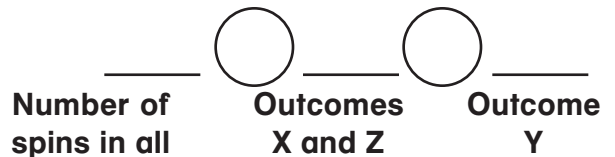
Number of Spins	
Letter	Tally
X	
Y	
Z	



1. How many times does the pointer land on X and Z?

4 times

2. Subtract to find out how many times the pointer lands on Y. Write a number sentence.



3. How many times does the pointer land on Y?

_____ times

Solve.

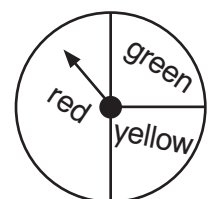
4. Casey spins the pointer 6 times and records the outcomes in the tally table. The tally table got ripped. How many times did the pointer land on U?

Number of Spins	
Letter	Tally
T	
U	_____

_____ times

5. **Challenge** Raven spins the pointer 10 times. It lands on red 7 times. It lands on green 1 time. How many times does it land on yellow?

_____ times



Equally Likely

Denetra has some marbles in a bag.
Which color marbles are equally likely to be pulled from the bag?

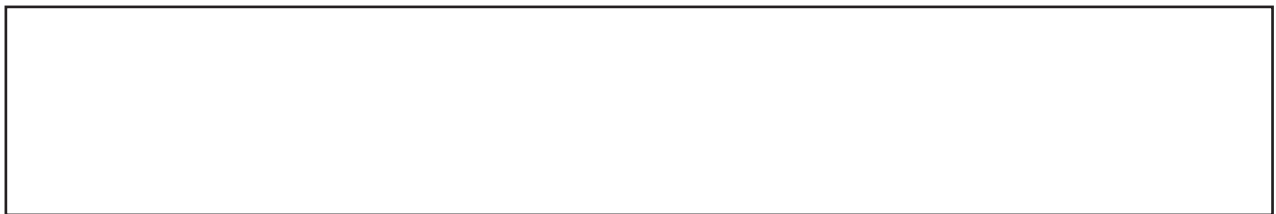
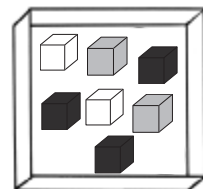


1. How many marbles are gray? _____ marble
2. How many marbles are black? _____ marbles
3. How many marbles are white? _____ marbles
4. Draw and color to show which color marbles are equally likely to be pulled from the bag.



Draw and color to show which are equally likely to be pulled.

5. Adam has some cubes in a box.
Which color cubes are equally likely to be pulled from the box?



6. **Challenge** Chaz has some coins in his pocket.
He has 3 dimes, 2 nickels, and 3 pennies. Which coins are equally likely to be pulled from his pocket?



Use Graphic Aids

A **graphic aid** is a picture, chart, or table that contains information. Graphic aids can help you make predictions.

Vocabulary
graphic aids

The table shows the number of cubes in a bag. Which color cube is Jess less likely to pull?

Cubes in a Bag	
Color	Number
gray	6
white	7
black	2

1. How can the graphic aid help you solve the problem?

The table shows how many of each color cube is in the bag.

2. How many of each color cube is in the bag?

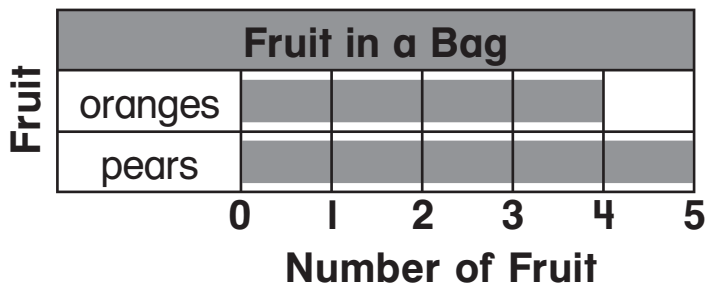
gray cubes: 6 | white cubes: 7 | black cubes: 2

3. Compare the number of cubes to make a prediction. Which color cube is Jess less likely to pull?

a black cube

Use the graphic aid to make a prediction.

4. The bar graph shows the fruit Johanna has in a bag. Which kind of fruit is she more likely to pull?



5. The table shows the stickers Daniel has in a box. Which kind of sticker is he less likely to pull?

Stickers in a Box	
Sticker	Number
frog	9
lizard	5

Dimes, Nickels, and Pennies

Ana has the coins below in a bank.
How much money does she have?

1. Count  by tens. 2. Count  by fives.

3. Count  by ones.



10¢,



20¢,



30¢,



35¢,



40¢,



41¢

4. How much money does she have? Ana has _____.

Count the coins to solve.

5. Juan finds the coins below in his pocket. What is the total value?



_____ ,



_____ ,



_____ ,



_____ ,



_____ ,



The total value is _____.

6. **Challenge** Draw and label two ways to make 15¢ using dimes, nickels, or pennies.

--	--

Half Dollars and Quarters

Doug has 1 half dollar and 1 quarter.

Lee has 2 dimes and 2 pennies.

How much money do they have altogether?

1. Start at 50¢. Count the coins.



50¢,



75¢,



85¢,



95¢,



96¢,



97¢

2. They have _____ altogether.

Count the coins to solve.

3. Quan has 1 half dollar and 2 dimes.

Ty has 2 nickels and 1 penny.

How much money do they have altogether?



_____ ,



_____ ,



_____ ,



_____ ,



_____ ,



They have _____ altogether.

4. **Challenge** Jon has 1 half dollar and 1 quarter.

Dana has 1 coin. Together they have 80¢.

What coin does Dana have?

Dana has a _____.

Count Collections

What is the total value of Yoko's coins?



1. Draw and label the coins in order from greatest to least value.



2. Count the coins.
3. Yoko has _____ ¢.

4. Draw and label the coins in order from greatest value to least value.



What is the total value of Terry's coins?

5. **Challenge** You have 1 half dollar, 1 quarter, and 2 nickels in your pocket. How many more nickels do you need to make 95¢?


_____ more nickels

Make the Same Amounts

Ravi drew 2 quarters to show 50¢.

Draw and label two different ways to show 50¢.

1. Use coins. Think of another way to show 50¢.
Then draw and label each coin.

One way:	Another way:
	

Use coins. Show the value in two ways.

Draw and label each coin.

2. Lee drew
1 quarter and
1 nickel to
show 30¢.

One way:	Another way:

3. **Challenge** Delia has 4 coins that have a total value of 80¢. Draw and label two ways to show her coins.

One way:	Another way:



Paraphrase

When you **paraphrase**, you say something in your own words.

Vocabulary
paraphrase

Mrs. Rios gives her son 60¢. What are some different ways that Mrs. Rios can use dimes, nickels, and pennies to make 60¢?

1. Say the problem in your own words.

What are some ways to make 60¢
using dimes, nickels, and pennies?

2. Make a list to solve.

Dimes	Nickels	Pennies	Total Value
4	2	10	60¢
3	5	5	60¢

Paraphrase if you need to.
Make a list to solve.

3. Sammy has 95¢.
What are some ways to show how much money he has using dimes and nickels?

Dimes	Nickels	Total Value
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Compare Amounts

Sara and Derek have some coins.
How do their coins compare?



Sarah's coins

80¢ ○ _____



Derek's coins

1. Count Sarah's coins. Write the total value.
2. Count Derek's coins. Write the total value.
3. Compare the total value of each group.
Then write $>$, $<$, or $=$.

Write the total value of each group.
Then write $>$, $<$, or $=$.

4. Jason and Karen have some coins.
How do their coins compare?



Jason's coins

_____ ○ _____



Karen's coins

5. **Challenge** Jason finds 1 nickel and 4 pennies. Now how do Jason's coins compare to Karen's coins?

_____ ○ _____



Paraphrase

**Vocabulary
paraphrase**

When you **paraphrase**, you say something in your own words.

Kesha has 2 quarters, 2 dimes, and 3 pennies. Does she have enough money to buy the markers?



markers

1. Say the problem in your own words.

Is 2 quarters, 2 dimes, and 3 pennies enough money to buy the markers?

2. Use coins to act it out. Draw the coins. Write the total value.



73¢

3. Does Kesha have enough money to buy the markers?

No

Paraphrase if you need to. Draw the coins. Write the total value. Then answer the question.

4. Darrin has 1 half dollar and 1 dime. Does he have enough money to buy the toy?



Add and Subtract Money

Becca has 46¢. She spends 8¢ on an apple. How much money does Becca have now?



46¢

1. How much money does Becca have to start with? _____
2. How much money does Becca spend on the apple? _____
3. Do you need to add or subtract? _____
4. Solve the problem.

5. How much money does Becca have now? _____

Add or subtract to solve.

6. Chan has 22¢.
His sister gives him 18¢.

Now Chan has _____.

-
7. **Challenge** Ian has 39¢.
His dad gives him
1 half dollar.

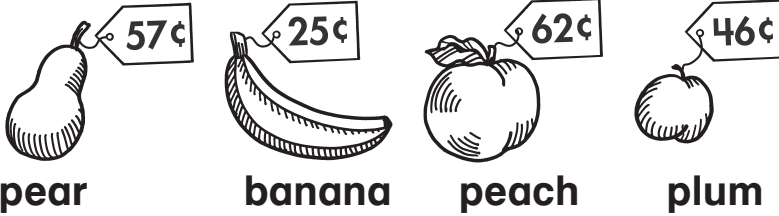
Now Ian has _____.



Make Predictions

Vocabulary
prediction

A **prediction** is a guess about how to solve a problem. You can use the information in a problem to make a prediction to solve the problem.



Cassidy spent 75¢. Which two pieces of fruit did she buy?

1. Which two pieces of fruit will add up to 75¢ or less?

Predict	Test	Compare
<u>banana</u> <u>plum</u>	$\begin{array}{r} 25\text{¢} \\ + 46\text{¢} \\ \hline 71\text{¢} \end{array}$	$75\text{¢} > 71\text{¢}$

2. Was your prediction correct? yes
3. Which two pieces of fruit can she buy? banana and plum

Use the fruit above. Make a prediction and test it to solve.

4. Dave has 85¢. Which two pieces of fruit can he buy?

Predict	Test	Compare
_____ _____		_____ ○ _____

One Dollar

Sanjay has the coins below.
Which coins can he use to make \$1.00?



1. Look at the coins. Count on the value of each coin until you make \$1.00.
2. Circle the coins that you use. Cross out the coins that you do not use.
3. Which coins can he use to make \$1.00?

Solve.

4. Belle has the coins below. Circle which coins she can use to make \$1.00. Cross out the coins you do not use.



5. **Challenge** Quanda has 10 coins that make \$1.00. What coins could she have? _____

Make Change to \$1.00

Cora has 3 coins. She buys some juice.
What is her change?



- Write the total value of Cora's coins.
- Count on from the price of the juice to find her change.
- What is Cora's change? _____

Solve.

- Brandon has a dollar bill. He buys a pack of paper.
What is his change?

Brandon has:



He buys:



Count on:



His change is _____.

- Challenge** Gregory paid for a pen using 2 quarters. His change was a dime.
How much did the pen cost?



pen _____

Explore Minutes and Hours

Katie eats breakfast before school.

Does it take her **more than 1 hour** or **less than 1 hour**?

1. Think of something that takes about an hour.

It takes about an hour to write a story.

2. Does it take more or less time to eat breakfast?

It takes _____ time to eat breakfast than it does to write a story.

3. So, does it take Katie **more than 1 hour** or **less than 1 hour** to eat breakfast?

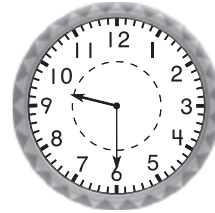
Solve.

4. Josh plays in a baseball game on Saturday afternoon. Does the baseball game take **more than one hour** or **less than one hour**?

5. **Challenge** It takes Mary 20 minutes to walk to school. It takes her the same amount of time to walk home. Does it take her **more than 1 hour** or **less than 1 hour** to walk to school and home again?

Time to 15 Minutes

Jada sees this clock. She wants to write the time in two ways.
What will Jada write?



1. Look at the clock. What is the hour?

9 o'clock

2. Start at 12. Count by fives.
How many minutes have passed since the hour?

_____ minutes

3. So, it is _____ minutes after _____ o'clock.

4. Show another way to write this time.



Solve.

5. Carl sees this clock. He wants to write the time it shows in two different ways. What will Carl write?



_____ minutes after _____ o'clock



6. **Challenge** Rico looks at a clock. The minute hand is pointing to the 3. The hour hand is pointing between the 7 and the 8. What time does the clock show? Write it in two ways.

_____ minutes after _____ o'clock



Time to 5 Minutes

Sophie wants to show the time on the clock. She knows that it is 10:35. Where should Sophie draw the minute hand?



1. Where does the minute hand point at 10:00?

The minute hand points to the 12.

2. Skip-count by fives to 35.
Find how many numbers the minute hand moves.

_____, _____, _____, _____, _____, _____, _____

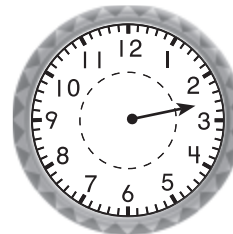
3. How many times did you count by fives? _____ times
4. What number does the minute hand point to at 10:35? _____
5. Where should Sophie draw the minute hand?
Draw it on the clock.

Draw the clock hands to solve.

6. Todd has this clock. He wants to show the time. He knows that it is 7:50. Where should he draw the minute hand?



7. **Challenge** Jim wants to show the time. He knows that it is 15 minutes before 3 o'clock. Where should Jim draw the minute hand?



Time Before the Hour

Drew gets out of school at 3:40.
His sister gets out of school at 4 o'clock.
How many minutes before his sister
does Drew get out of school?



1. Look at the clock. How many minutes have passed since 3 o'clock?

40 minutes

2. How many minutes are left in the hour?

_____ minutes

3. How many minutes before 4 o'clock is 3:40?

3:40 is _____ minutes before 4 o'clock.

4. How many minutes before his sister does Drew get out of school?

_____ minutes

Solve.

5. Patrick eats dinner at 6:35.
His friend Joe eats dinner at 7:00. How many minutes before Joe does Patrick eat dinner?



_____ minutes

6. **Challenge** Yuri gets to the park at 3:40. Lee gets to the park at 25 minutes before 4 o'clock. Lucy gets to the park at 30 minutes after 3 o'clock. Who gets to the park first?

Who gets to the park last?



Compare and Contrast

When you **compare and contrast**, you think about how things are alike or different. You can compare and contrast to estimate how long some things might take.



Does it take about 2 minutes or about 2 hours to play a game of baseball?

First, think of something that might take about 2 minutes.

brush your teeth

Then, think of something that might take about 2 hours.

watch a movie

Now compare and contrast a game of baseball to those things.

A baseball game takes as much time as

watching a movie.

A baseball game takes more time than

brushing your teeth.

So, about how long will it take to play a game of baseball?

about 2 hours

About how long will it take? Compare and contrast. Then write **minutes** or **hours**.

1. play at the park



about 2 _____

2. make a building of blocks



about 30 _____

A.M. and P.M.

Tommy goes to baseball practice at the time the clock shows.

Write the time. Is this A.M. or P.M.?



1. Where does the hour hand point?

between the 3 and the 4

2. Where does the minute hand point?

3. Write the time.



4. Think about when Tommy would go to baseball practice. Is the time A.M. or P.M.?

Solve.

5. Brian eats lunch at the time the clock shows. Write the time. Is this A.M. or P.M.?



6. **Challenge** Maddy takes a bath at 8:00 every day. Amelia takes a bath at 9:00 every day. Amelia takes her bath earlier than Maddy every day. How is this possible?

Elapsed Time

Walker starts eating breakfast at 8:15 A.M. He is finished at 8:30 A.M. How long does it take Walker to eat breakfast?



8:15 A.M.



8:30 A.M.

8:15 A.M.

: _____

1. When does Walker start eating?
2. When does Walker finish eating?
3. Start at the time Walker starts eating. Count by 5s until you reach the time he finishes. How many minutes do you count? _____ minutes
4. How long does it take Walker to eat breakfast?

Solve.

5. Will starts his homework at 3:30 P.M. He finishes at 4:15 P.M. For how long does Will do homework?

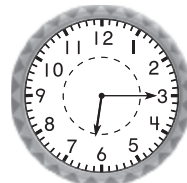


3:30 P.M.



4:15 P.M.

6. **Challenge** Charlie and Caroline both start reading at 6:15 P.M. Charlie reads for 45 minutes. Caroline reads for 1 hour. At what time does each child finish?



Charlie: _____ : _____

Caroline: _____ : _____

Days, Weeks, Months, and Years

Susie's family was on vacation for 11 days.
Is this **more than**, **less than**,
or **the same as** 2 weeks?



1. How many days are in 1 week?

7 days

2. How many days are in 2 weeks? Add to find out.

_____ + _____ = _____ days

3. Compare the number of days in 2 weeks
to the number of days they were on vacation.

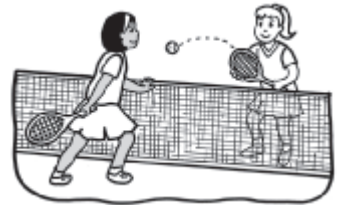
_____ ○ _____

4. Was their vacation **more than**,
less than, or **the same as** 2 weeks?

It was sunny for _____ 2 weeks.

Write **more than**, **less than**, or the **same as**
to complete the sentences.

5. Riley and her sister went to tennis camp
for 5 weeks. Is this **more than**, **less than**,
or **the same as** 1 month?



It is _____ 1 month.

6. **Challenge** Paul stayed with his grandparents
for 28 days. Then he visited his aunt for two weeks.
Together, is this amount of time **more than**,
less than, or **the same as** 2 months?



It is _____ 2 months.

Identify Solid Figures

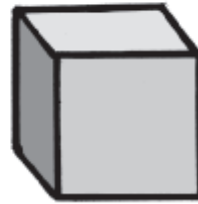
Todd buys an object that is shaped like a cube. Which item does he buy?



paint can



hat



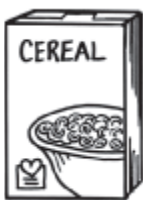
block

1. Which solid figure is the paint can shaped like? _____
2. Which solid figure is the hat shaped like? _____
3. Which solid figure is the block shaped like? _____
4. Which item does Todd buy? _____

cylinder

Use the pictures to solve.

5. Lola buys one of these items. It is shaped like a rectangular prism. Which item does she buy?



cereal box



orange



megaphone

6. **Challenge** Denny buys one of these items. It is not shaped like a sphere or a cylinder. Which item does he buy?



marble



can



book

Sort Solid Figures

Jared has an object that slides and rolls. Which object does he have?



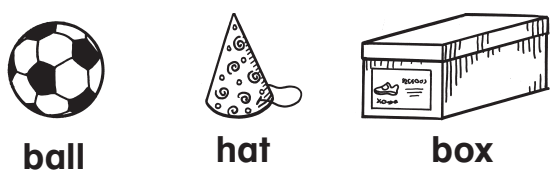
	Object	Does it slide?	Does it roll?	Does it slide and roll?
1.	ball	no	yes	no
2.	can			
3.	book			

4. Which object slides and rolls? _____

5. Which object does Jared have? _____

Solve.

6. Ana has an object that rolls but does not slide. Which object does she have? Circle it.

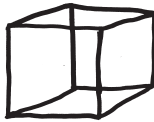


7. **Challenge** Draw 3 objects that are shaped like 3 different solid figures. Then write your own problem about sliding and rolling.

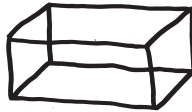
Attributes of Solid Figures

Betty draws a solid figure that has 5 faces, 8 edges, and 5 vertices.

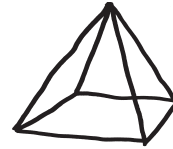
Which of these figures does she draw?



cube



rectangular prism



pyramid

1. How many faces, edges, and vertices does a cube have?

faces: 6 edges: 12 vertices: 8

2. How many faces, edges, and vertices does a rectangular prism have?

faces: _____ edges: _____ vertices: _____

3. How many faces, edges, and vertices does a pyramid have?

faces: _____ edges: _____ vertices: _____

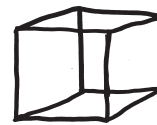
4. Which figure does Betty draw? _____

Solve.

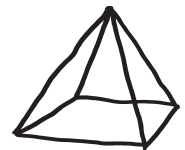
5. Jaime draws a solid figure that has 6 faces, 12 edges, and 8 vertices. Which figure does he draw? Circle it.



cone



cube



pyramid

6. **Challenge** Carlos has two different solid figures. The two figures have 16 vertices in all. Which two figures might Carlos have?

_____ and _____

Compare and Contrast Solid Figures

Janie has a solid figure that does not roll. It has 5 edges. Which solid figure does Janie have?



rectangular
prism



pyramid

1. Does the rectangular prism roll?
2. Does the pyramid roll?
3. How many edges does the rectangular prism have?
4. How many edges does the pyramid have?
5. Which solid figure does not roll and has 5 edges?

no

Solve.

6. Art has a solid figure that rolls. It has no flat surfaces. Which solid figure does Art have?



sphere

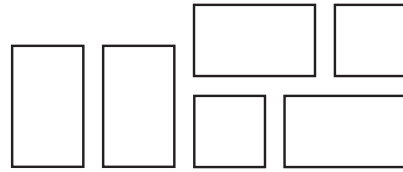


cone

7. **Challenge** Cal draws a figure that has 12 edges. All of the figure's faces are squares. Draw and name Cal's figure.

Make Plane Figures from Solid Figures

Jack draws around the faces of a solid figure. These are the plane figures that he makes. What solid figure does he draw around?



1. How many faces does Jack draw around? 6 faces

2. Which solid figures have 6 faces each?

_____ and _____

3. What plane figures does Jack make when he draws around the solid figure?

_____ and _____

4. Look at the plane figures in Exercise 3. Which solid figure has these as faces?

5. Which solid figure does Jack draw around?

Solve.

6. Deb draws around the faces of a solid figure. She makes these plane figures.



What solid figure does she trace?

7. **Challenge** Luke uses plane figures to build a model of a solid figure. It has 5 faces. Four faces are the same plane figure. The other face is a square. What solid figure does he build?

Identify Plane Figures

Some children are drawing plane figures.
John draws a plane figure too.
He did not draw a triangle or a rhombus.
Which plane figure does John draw?



1. Remember the plane figures.



2. Look at the drawn plane figures carefully.
Put an **X** on the triangle. Put an **X** on the rhombus.
3. Look at the plane figure that is left.
Which plane figure does John draw? _____

Use the plane figures to solve.

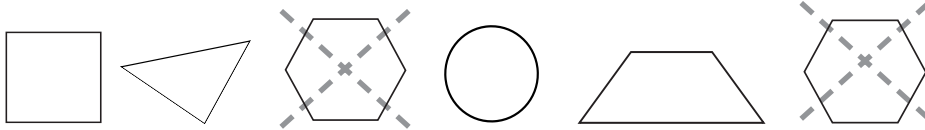
4. Mara and Tia are drawing plane figures. Mara did not draw a square or a circle.
Which plane figure does Mara draw?



5. **Challenge** Liam draws a plane figure that has four straight lines that are all the same length. What plane figure does he draw?

Algebra: Sort Plane Figures

William draws two plane figures. Both of the plane figures have 4 sides and 4 vertices.
Which two plane figures does he draw?

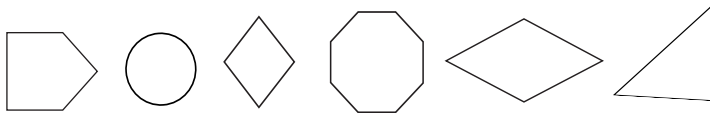


- Put an **X** on the plane figures that have more than 4 sides and more than 4 vertices.
- Put an **X** on the plane figures that have fewer than 4 sides and fewer than 4 vertices.
- Which two plane figures does William draw?

_____ and _____

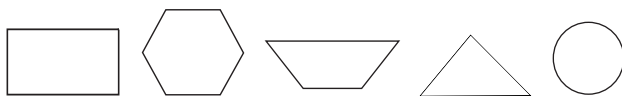
Use the plane figures to solve.

- Tara draws two plane figures that have fewer than 4 sides and fewer than 4 vertices.
Which plane figures does she draw?



_____ and _____

- Challenge** Alyssa draws two different plane figures. Her plane figures either have more than 4 sides or fewer than 4 vertices. Which plane figures does she draw?



_____ and _____

Combine Plane Figures

Jo combines 3 plane figures to make a rectangle. One of the plane figures is a square. What are the other plane figures?

1. Use . Trace it.



2. What two plane figures can you add to the square to make a rectangle? Use pattern blocks to help you decide.
3. Trace the pattern blocks that make a rectangle.
4. What are the other plane figures? _____
-

Use pattern blocks to solve.

5. Marina combines 2 plane figures to make a hexagon. One of the plane figures is a trapezoid. What is the other plane figure?
6. **Challenge** Han wants to make a rhombus. He must use 2 pattern blocks. Which 2 pattern blocks can Han combine to make a rhombus?

Separate Plane Figures

Jill has this paper figure. She wants to cut the figure apart to make 2 new figures. Which new figures can she make?

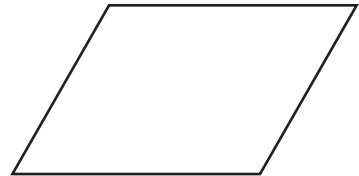


1. Use a piece of paper and a pencil to trace the figure. Then use scissors to cut the figure out.
2. Fold the figure to make 2 new figures. Then cut along the fold.
3. Which new figures can Jill make?

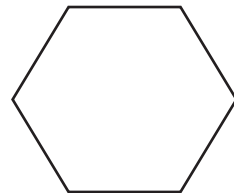
_____ | trapezoid _____ and _____

Use a piece of paper and a pencil to trace the figure. Fold to make new figures. Cut along the fold. Name the new figures.

4. Ming has this paper figure. He wants to cut the figure apart to make 2 new figures. Which new figures can he make?



5. **Challenge** Loretta has this paper figure. She wants to cut the figure apart to make 4 new figures. Which new figures can she make?





Reread

When you **reread** a problem, you read it again. Rereading a problem can help you find information.

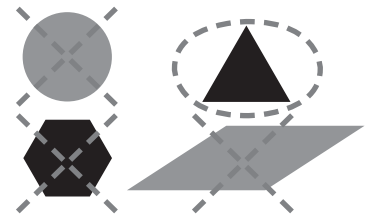
I am a plane figure.
I have fewer than 4 vertices.
I am not a circle. Which figure am I?



1. Reread the problem. What information do you need to answer the question?

The plane figure has fewer than 4 vertices and is not a circle.

2. Look at the plane figures. Cross out the figures that do not fit the information. Circle the figure that answers the question.



Reread each problem if you need to. Cross out the figures that do not fit the information. Circle the figure that answers the question.

3. I am a plane figure. I have more than 3 sides. I am not a trapezoid. Which figure am I?



4. I am a plane figure. I have more than 3 vertices. I have fewer than 5 sides. Which figure am I?



Slides, Flips, and Turns

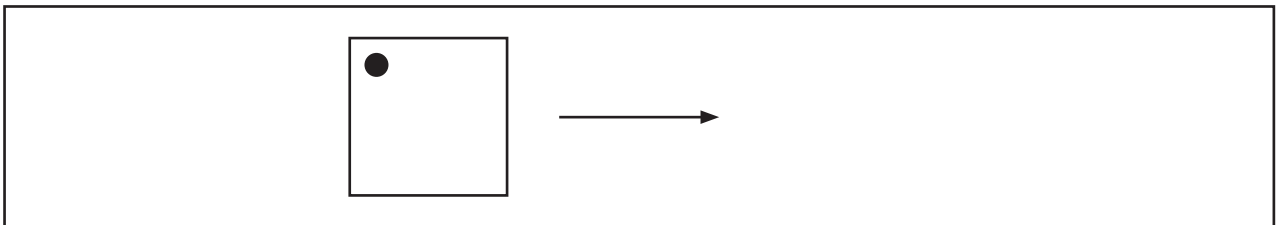
Miles flips a trapezoid. What does the trapezoid look like after the flip?



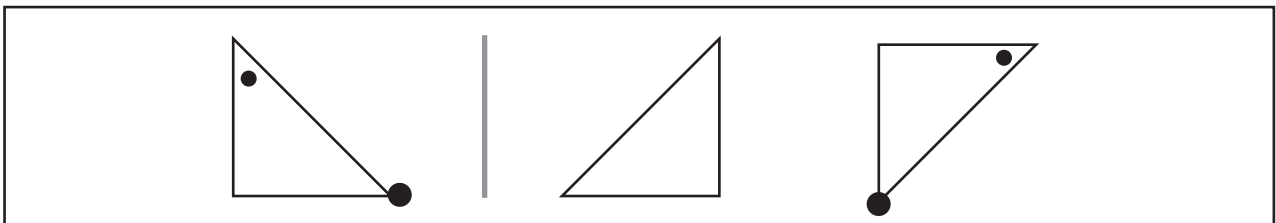
1. Use a trapezoid. Place it on top of the trapezoid. Then flip it.
2. Trace the figure to show how it moved.

Use plane figures. Trace the figure to show how it moved.

3. Tyrice slides a square. What does the square look like after the slide?

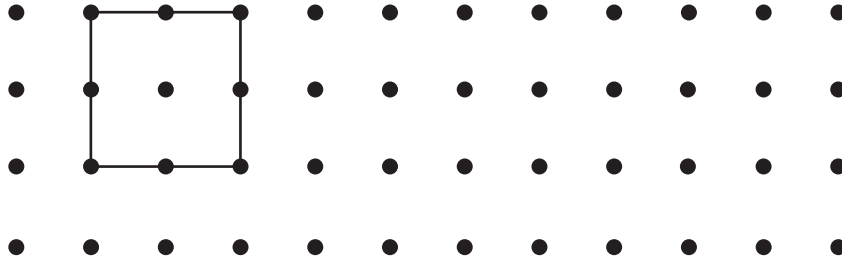


4. **Challenge** Yolanda turns a triangle. Circle which shows the triangle after the turn.



Congruent Figures

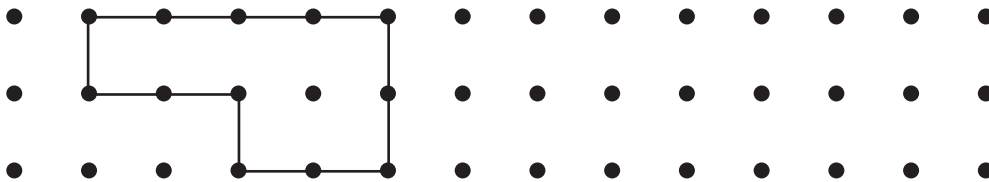
Jim draws a figure. Lindsey wants to draw a figure congruent to Jim's figure. What will Lindsey's drawing look like?



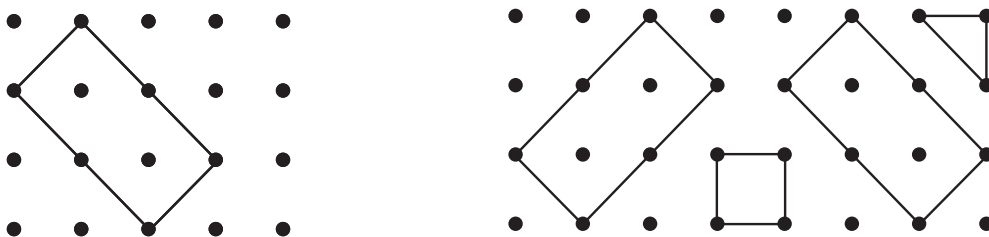
- How long is each side of Jim's square? _____ units
- Draw Lindsey's figure next to Jim's figure.

Solve.

- Jana draws a figure. Alice wants to draw a figure congruent to Jana's figure. What will Alice's figure look like? Draw the figure.



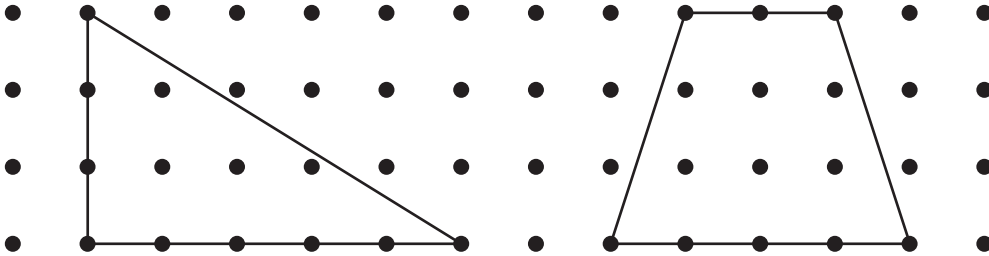
- Challenge** Izzy draws a figure. Steven draws some figures congruent to Izzy's figure. Selma draws some figures, but they are not congruent to Izzy's figure. Circle Steven's figures.



Izzy's figure

Symmetry

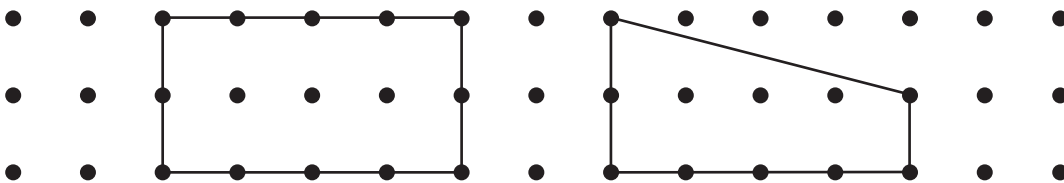
Donna draws these two figures. On which figure can she draw a line of symmetry?



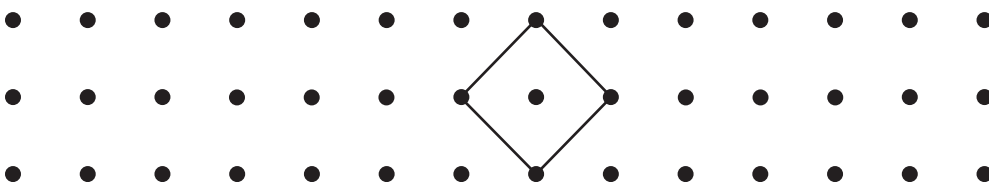
1. Look at the triangle. Can the triangle be divided into two congruent figures? no
2. Look at the trapezoid. Can the trapezoid be divided into two congruent figures? _____
3. Draw a line of symmetry.

Draw a line of symmetry to solve.

4. Colin draws these two figures. On which figure can he draw a line of symmetry?



5. **Challenge** Britta draws this figure. Draw to show all of the lines of symmetry.



Algebra: Identify and Describe Patterns

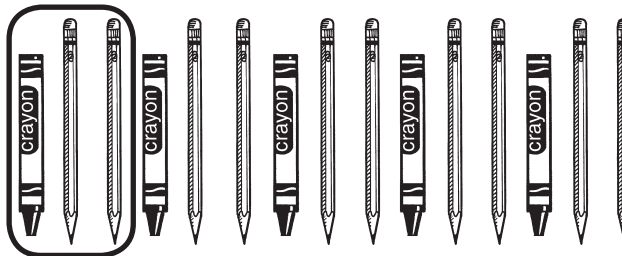
Anna made this repeating pattern.
 What is the pattern unit in Anna's pattern?



1. Look at the pattern. Circle the pattern unit.
2. What is Anna's pattern unit?

Solve.

3. Jake made this repeating pattern.



Circle the pattern unit in Jake's pattern.

Jake's pattern unit is: _____.

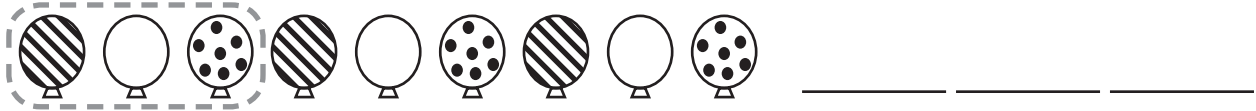
4. **Challenge** Jamal made this repeating pattern.
 Draw the missing parts. Then describe Jamal's pattern unit.



Jamal's pattern unit is: _____.

Algebra: Predict and Extend Patterns

George wants to extend this pattern.
What will he draw?



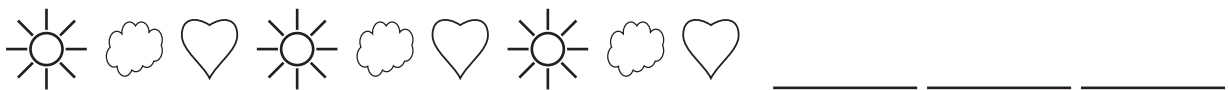
1. Circle the pattern unit.
2. Describe the pattern unit.

3. Describe the last balloon in the pattern. _____
4. What will George draw? Draw it at the end of the pattern.



Draw to solve.

5. Manuel wants to extend this pattern.
What will he draw?



6. **Challenge** Rita wants to extend this pattern, but it is missing some pieces. First fill in the missing pieces. Then draw what comes next.



Algebra: Create a Pattern

Diana uses these figures to make a pattern:   .




Draw what Diana's pattern might look like.
Write **A**, **B**, or **C** to describe the pattern.

- Use the figures to make a pattern unit.
Circle it.



- Draw the pattern unit two more times.
- Use the letters A, B, or C to describe each letter in the pattern. Write the letters beneath the pattern.

Draw to solve.

- Tyrone uses these figures to make a pattern:   
Draw what Tyrone's pattern might look like.
Write **A** or **B** to describe the pattern.

- Challenge** Daniel draws figures to make a pattern that can be described with the letters ABA. Draw what Daniel's pattern might look like. Then write **A** or **B** to describe the pattern.

Find the Missing Piece

Jake made this pattern.
He forgot to draw one of the pieces.
Draw the piece that is missing.



1. Look at the pattern. Circle the pattern unit.
2. Circle each time the pattern unit repeats.
3. Find where a piece of the pattern unit is missing.
Look at the blank space in the pattern.
Which piece of the pattern belongs there? _____
4. Draw the missing piece.

Solve.

5. Miriam makes this repeating pattern with fruit.
She is missing one piece of fruit. Circle the pattern unit. Draw the fruit that is missing.

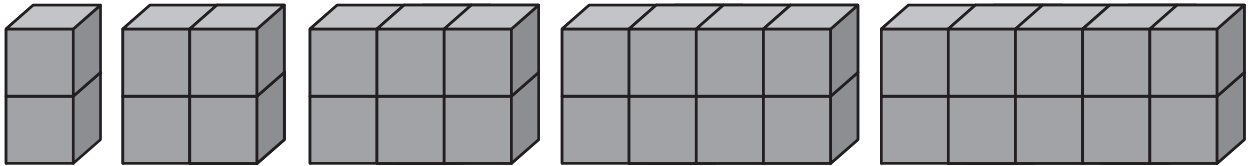


6. **Challenge** Lonnie uses the pattern unit AaYy to make a pattern. Some of the letters in his pattern are not where they belong. Cross out the letters that are out of place. Then rewrite Lonnie's pattern correctly.

A a Y y A a Y y A a Y y a A Y y A A y y

Algebra: A Growing Pattern

Kira makes this growing pattern.
How does her pattern grow?



1. Count the number of cubes in each step.

2 4 6 8 10

2. How is each step different from the one before?

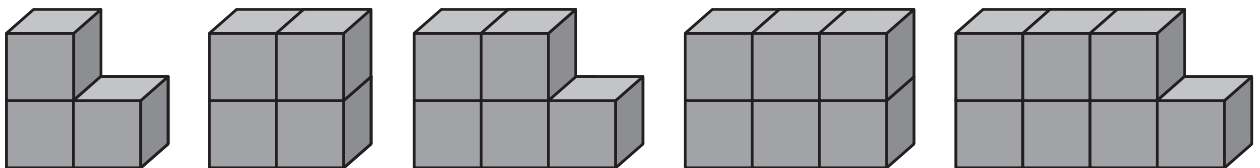
Each step has _____ cubes than the last step.

3. Where are the cubes placed?

The cubes are added _____.

Solve.

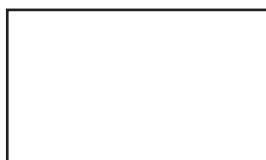
4. Oliver builds this growing pattern.
How does his pattern grow?



Each step has _____ cube than the last step.

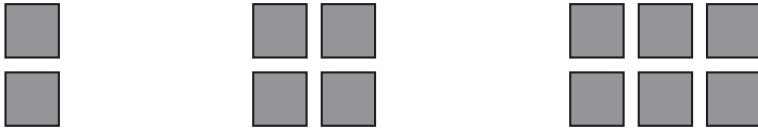
The cubes are added _____.

5. **Challenge** Ian draws this growing pattern. He leaves out one of the steps. Draw the missing step in the pattern.



Algebra: Predict and Extend a Growing Pattern

Adam uses tiles to make this growing pattern.
What might come next in Adam's pattern?



1. Look at the picture.
Count how many tiles are in each step.

2 4 6

2. How does the pattern grow?

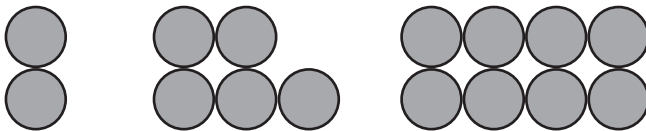
Each step has _____ tiles than the last step.

3. How many tiles should there be in the next step of
Adam's pattern? _____ tiles

4. Draw what might come next in Adam's pattern.

Solve.

5. Tara draws this growing pattern. Draw what
might come next in Tara's pattern.



6. **Challenge** Sean arranges blocks in a growing
pattern. The first step has 3 blocks. The
second step has 5 blocks. How many blocks
might there be in the fourth step? _____ blocks



Use Graphic Aids

A table is a kind of **graphic aid**. You can use graphic aids to help you solve problems.

Jin writes 2 stories each month. If she starts in January, how many stories does she write by the end of May?

Use the graphic aid to solve the problem.

How many stories are added each month? 2 stories

Fill in the table through May. Add 2 stories each month.

Month	January	February	March	April	May
Number of Stories	2	4	6	8	10

By the end of May, Jin writes 10 stories.

Use the graphic aid to solve.

- Cindy collects 3 pinecones from her yard each day. She starts collecting on Monday. How many pinecones does she have on Friday?

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Number of Pinecones					

On Friday, Cindy has _____ pinecones.

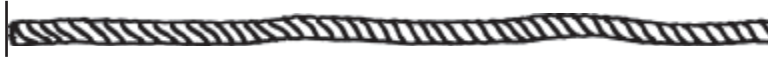
- Alexander writes 2 postcards each week. On the 6th week, how many postcards has Alexander written?

Week	1	2	3	4	5	6
Number of Postcards						

On the 6th week, Alexander has written _____ postcards.

Measure to the Nearest Inch

Lana has the piece of yarn below.
About how long is her piece of yarn?
Measure the length to the nearest inch.



1. How can you use a ruler to measure the yarn?

Line up the zero mark on the ruler
with one end of the yarn.

2. Find the inch mark that is closest to the other end of the yarn.

3. About how long is Lana's piece of yarn?

Measure: about _____ inches

Measure the length to the nearest inch.

4. Carey has the friendship bracelet below.
About how long is her friendship bracelet?



Measure: about _____ inches

5. **Challenge** Mr. Simmons has the pencil below.
About how long is his pencil?



Measure: about _____ inches



Use Picture Clues

Picture clues help you when you cannot read a word. The picture is a clue so that you can keep reading.

Vocabulary
picture clues

Tori's chain is about 3 inches long. Circle the best estimate for the length of the paper clip.



(about 1 inch)

about 2 inches

about 3 inches

1. How can you use picture clues to help you?

The picture of the chain helped me read the word chain.

2. Compare the length of the chain and the length of the paper clip. Then look at the estimates.
3. Which estimate is the most reasonable for the length of the paper clip? Circle your answer.

4. Shannon's shoelace is about 5 inches long. Circle the best estimate for the length of the stick.



about 1 inch

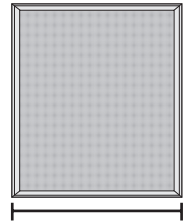
about 2 inches

about 3 inches

Inch, Foot, and Yard

Darnell can use an inch, a foot, or a yard to measure the length of the bulletin board. Choose the best unit of measure. Measure the real object.

bulletin board



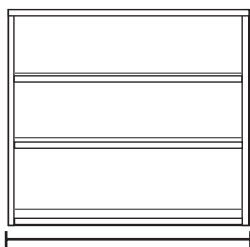
a bulletin board

1. What is the object you are going to measure? _____
2. Find the object. Look at the object. Which is the best unit of measure to use? _____
3. Use a yardstick. Measure to the nearest yard. _____
4. About how long is the bulletin board? about _____

Choose the best unit of measure. Measure the real object.

5. Mr. Allen can use inch, foot, or yard to measure the length of a bookcase.

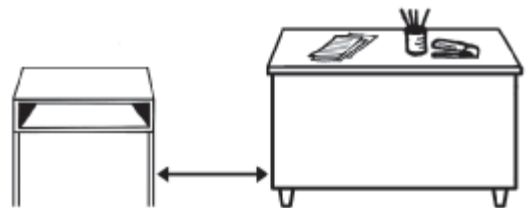
bookcase



Unit: _____

Measure: about _____

6. **Challenge** Carson can use inch, foot, or yard to measure the distance from his desk to the teacher's desk.



student desk

teacher desk

Unit: _____

Measure: about _____

Measure to the Nearest Centimeter

Luigi has the piece of string below.
About how long is his piece of string?
Measure the length to the nearest centimeter.



1. How can you use a ruler to measure the string?

Line up the zero mark on the ruler
with one end of the string.

2. Find the centimeter mark that is closest to the end of the string.
3. About how long is Luigi's piece of string? Measure: about _____ centimeters
-

Measure the length to the nearest centimeter.

4. George has the bead chain below.
About how long is his bead chain?



Measure: about _____ centimeters

5. **Challenge** Mr. Russ has the pencil below.
About how long is his pencil?

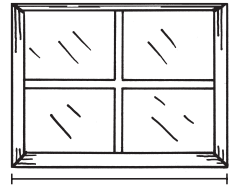


Measure: about _____ centimeters

Centimeter and Meter

Mrs. Davis can use a centimeter or a meter to measure the length of a window. Choose the better unit of measure. Measure the real object.

window



a window

1. What is the object you are going to measure?
2. Find the object. Look at the object. Which is the better unit of measure to use?
3. Use a meterstick. Measure to the nearest meter.
4. About how long is the window?

about _____

Choose the better unit of measure. Measure the real object.

5. Alicia can use centimeter or meter to measure the length of a marker.

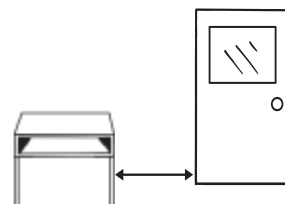
marker



Unit: _____

Measure: about _____

6. **Challenge** Conner can use centimeter or meter to measure the distance from his desk to the door.

student
desk

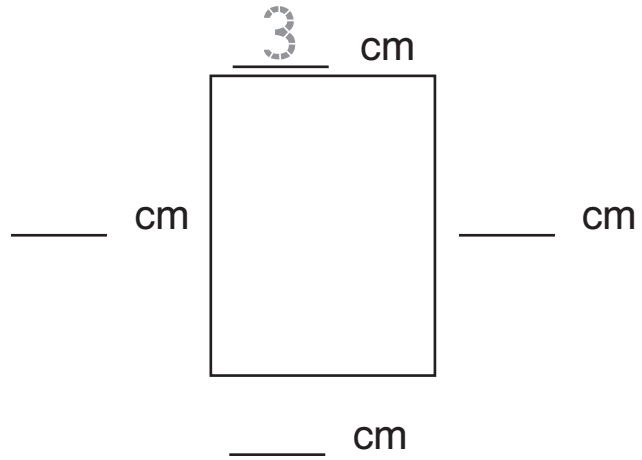
door

Unit: _____

Measure: about _____

Perimeter

Erica makes this rectangle.
She wants to know the perimeter.
Measure each side. Then add
to find the perimeter.



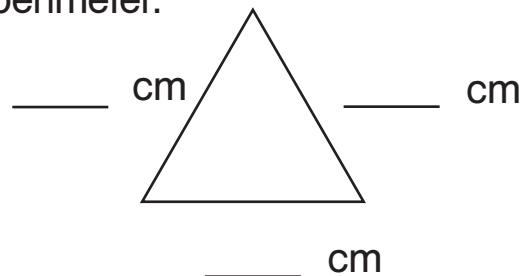
- Using a centimeter ruler, measure each side of the rectangle. Write the measurement on the line next to each side.
- Write the lengths of the rectangle to complete the number sentence. Then add.

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

The perimeter of Erica's rectangle is _____ centimeters.

Measure each side. Then add to find the perimeter.

- Mercedes wants to know the perimeter of this triangle.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

The perimeter of Mercedes' triangle is _____ centimeters.

- Challenge** Mr. Price has a square. He wants to know the perimeter. He knows that one side is 2 cm. What is the perimeter?

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

The perimeter of Mr. Price's square is _____ centimeters.

Area

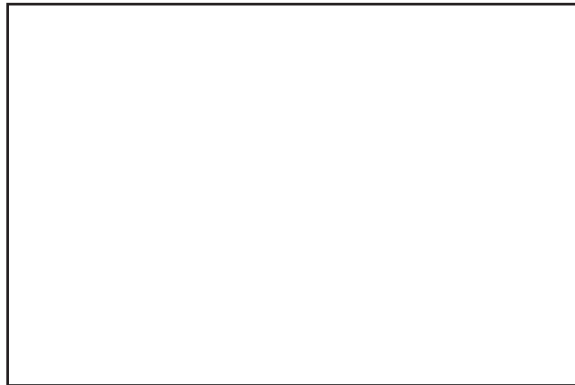
Julie makes this figure. She wants to know the area.
Use tiles to find the area of the figure.



- Place tiles on the figure until the figure is covered.
- Count the number of tiles you used.
What is the area of Julie's figure? _____ square units

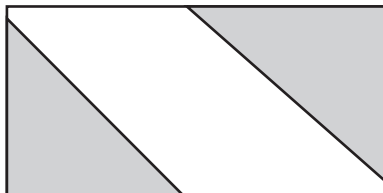
Use tiles. Find the area of the figure.

- Jason wants to know the area of this figure.



The area of Jason's figure is _____ square units.

- Challenge** Mr. Harris wants to know the area of this figure. Some of the figure is covered up.



The area of Mr. Harris's figure is _____ square units.

Ounces and Pounds

Marian wants to know how much her calculator weighs. About how much might it weigh?



calculator

1. Think about how much a calculator might weigh. Is a calculator a heavy object or a light object?

A calculator is a light object.

2. Which unit should Marian use to measure the calculator's weight? Circle it.

pound

ounce

3. Find a calculator. Measure the weight. About how much might Marian's calculator weigh?

about _____

Solve.

4. Carrie wants to know how much her book weighs. About how much might it weigh? Measure a book to solve. Use ounces or pounds.



book

about _____

5. **Challenge** Tom's crayon box weighs 1 pound. Joe's crayon box weighs 25 ounces. Who has a heavier crayon box, Tom or Joe?



crayon box

Grams and Kilograms

Sadie has a piece of chalk.
She wants to find the mass of
the chalk. What might the mass of
Sadie's chalk be?

1. Think about the mass of a piece of chalk.
Is it a light object or a heavy object?

A piece of chalk is a light object.

2. Which unit should Sadie use to measure?
Circle it.

gram

kilogram

3. Find a piece of chalk. Measure the mass.
What might the mass of Sadie's chalk be?

about _____

Solve.

4. Amy has a storybook. She wants to find the mass of the storybook. What might the mass of Amy's storybook be? Measure a real storybook to solve. Use grams or kilograms.



storybook

about _____

5. **Challenge** Ken has 7 table tennis balls. Each ball has a mass of 2 grams. What is the mass of the 7 table tennis balls altogether?

_____ grams

Cups, Pints, Quarts, and Gallons

Sam wants to measure the capacity of his drinking glass. Which unit of measure should he use, cup or gallon?



drinking glass

1. How many cups are in 1 gallon?

16 cups = 1 gallon

2. Does a drinking glass hold more than 1 gallon or less than 1 gallon? Circle one.

less than
1 gallon

more than
1 gallon

3. Which unit of measure should Sam use? Circle it.

cup

gallon

Solve.

4. Aiden wants to know the capacity of his kitchen sink. Circle the unit of measure he should use.



sink

cup

gallon

5. **Challenge** Haley's vase holds 3 pints of water. Adele's vase holds 4 cups of water. Whose vase has a greater capacity, Haley or Adele?



vase

Liters

Campbell wants to fill a bucket with water. Estimate how many liters Campbell's bucket can hold. Then measure the capacity of a real bucket to check your estimate.



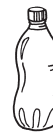
bucket

1. Find a container that holds about 1 liter.



= 1 liter

2. Compare the liter bottle to a bucket. Estimate how many liters the bucket can hold.



Estimate: about _____ liters

3. Fill the liter bottle with rice or dry beans. Pour the bottle into the bucket as many times as you can. How many liters can the bucket hold?

Measure: about _____ liters

Estimate. Then measure.

4. Jacob wants to fill a milk jug. How many liters might the milk jug hold?

Estimate: about _____ liters

Measure: about _____ liters



milk jug

5. **Challenge** About how many mugs can a 1-liter bottle hold?

Estimate: about _____ mugs

Measure: about _____ mugs



mug

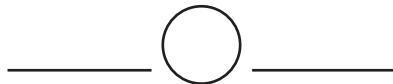


liter bottle

Measure Temperature

Janice has a glass of ice water.
She takes the ice out. How does the
temperature of the water change?

1. Use a Fahrenheit thermometer.
Measure the temperature of a glass of ice water. _____ °F
2. Take the ice out of the glass. Wait a few minutes.
Then measure the temperature again. _____ °F
3. Compare the degrees for both measurements.



4. How does the temperature of the water change?

Solve.

5. Ina takes some juice out of
the refrigerator. She lets it
sit outside in the sun. How
does the temperature of
the juice change?

6. **Challenge** Use a Celsius
thermometer to measure the
temperature of a glass of
water. Then use a Fahrenheit
thermometer to measure
the temperature of the same
water.

_____ °C and _____ °F



Compare and Contrast

When you **compare and contrast**, you think about how things are alike and different. You can compare and contrast possible answers to help you solve problems.

Terry wants to know how much his suitcase weighs. Which tool should he use to measure, a cup or a scale?



suitcase

Compare and contrast the two choices.

How are the cup and the scale alike?

They are both tools for measuring.

How are the cup and the scale different?

They measure different things.

What does each tool measure?

A cup measures capacity. A scale measures weight.

What does Terry want to measure?

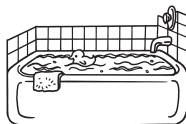
weight

Which tool should he use?

scale

Compare and contrast to solve.

1. Jordan wants to know how warm the water in her bathtub is. Which tool should she use, a thermometer or a scale?



bathtub

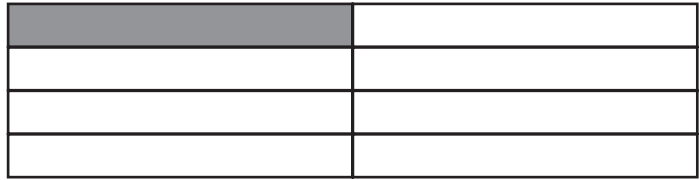
2. Julian wants to know how long his marker is. Which tool should he use, an inch ruler or a cup?



marker

Unit Fractions

Peter draws this figure.
He shades 1 part.
What fraction of Peter's
figure is shaded?



- Look at Peter's figure. How many equal parts are in the whole? 8 equal parts
- How many equal parts are shaded? 1 equal part
- Complete the sentence.

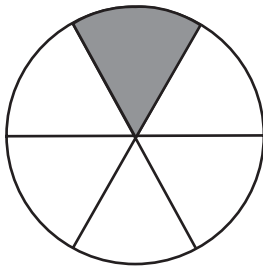
1 out of 8 equal parts is shaded.

- What fraction of Peter's figure is shaded? Write the fraction.

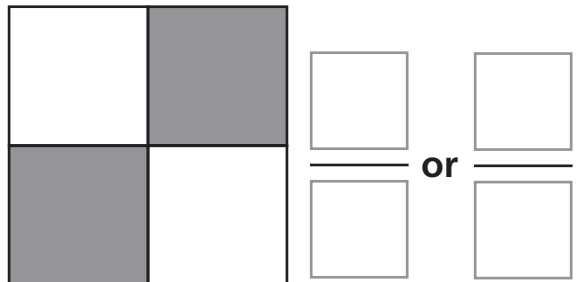
of the whole is shaded.

Write the fraction to solve.

- Corinne draws this figure.
She shades one part.
What fraction of the whole
figure is shaded?



- Challenge** Devon draws this figure. He shades some parts. What fraction of the whole figure is shaded?



	or	

Compare Unit Fractions

Two sandwiches are the same size. Maggie eats $\frac{1}{3}$ of one sandwich. Jill eats $\frac{1}{2}$ of the other sandwich. Which girl eats more sandwich?



1. Color the fraction strips to show the fractions.



2. Compare. Circle the greater fraction.

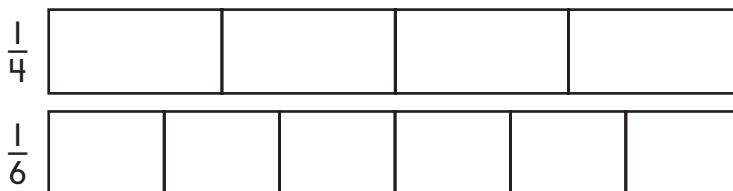
$\frac{1}{2}$

$\frac{1}{3}$

3. Which girl eats more sandwich? _____
-

Compare the fractions to solve.

4. Two pretzels are the same size. Tom eats $\frac{1}{4}$ of one pretzel. Bruno eats $\frac{1}{6}$ of the other pretzel. Which boy eats more pretzel?



pretzel

5. **Challenge** Jake eats a piece of pizza that is $\frac{1}{4}$ of a pizza. Allie eats a piece of the same pizza. Her piece is smaller than Jake's. Circle the fractions of the pizza that Allie might eat.

$\frac{1}{3}$

$\frac{1}{8}$

$\frac{1}{6}$

$\frac{1}{2}$



Compare and Contrast

You can **compare and contrast** to find which amount is greater.

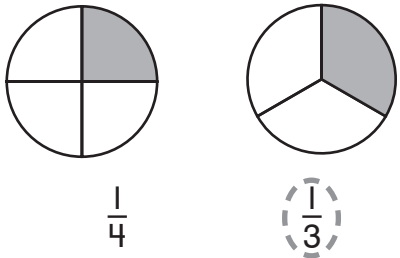
Two pancakes are the same size. Jonathan eats $\frac{1}{4}$ of one pancake. Jane eats $\frac{1}{3}$ of the other. Who eats more pancake?

Shade the models to show the fractions. Shade $\frac{1}{4}$ of one model and $\frac{1}{3}$ of the other.

Compare and contrast the fractions. Circle the greater amount.

Who eats more pancake?

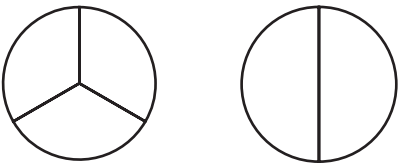
Vocabulary
compare and contrast



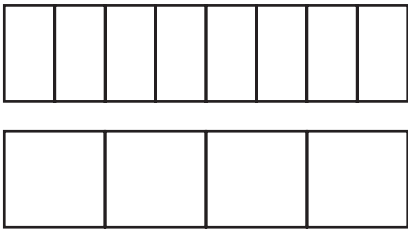
Jane

Compare and contrast the fractions to solve.

1. Two peaches are the same size. Justin eats $\frac{1}{3}$ of one peach. Marie eats $\frac{1}{2}$ of the other. Who eats more peach?

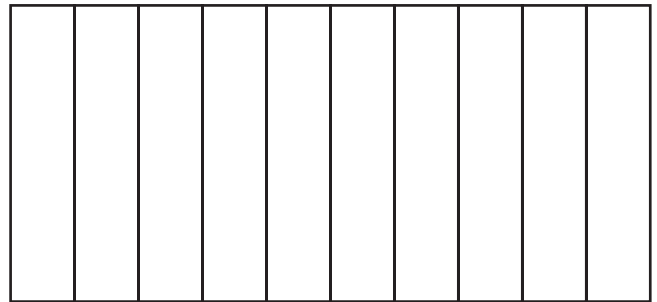


2. Two signs are the same size. Mario paints $\frac{1}{8}$ of one sign. Julie paints $\frac{1}{4}$ of the other. Who paints more of a sign?



Other Fractions

Callie has a poster. She wants to paint $\frac{8}{10}$ of it. Show a way that Callie can paint her poster.



$$\frac{8}{10}$$

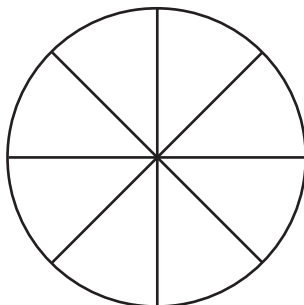
1. What fraction of the whole poster does Callie want to paint?
2. Look at the picture. How many equal parts are there?
3. How many parts should Callie paint to show the correct fraction?
4. Shade the picture to show a way that Callie can paint her poster.

_____ equal parts

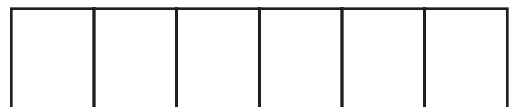
_____ parts

Solve.

5. Joe has a pizza. He eats $\frac{5}{8}$ of it. Shade the picture to show how much of the pizza Joe eats.

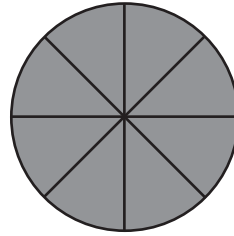


6. **Challenge** Alberto cuts his pizza into sixths. He shares the pizza equally with his sister. What fraction of the pizza do they each get?



Fractions Equal to 1

Edward and his friends eat a whole pizza. Write a fraction for how much pizza they eat.



8 equal slices

- Look at the picture. How many equal slices are there?
- How many slices do Edward and his friends eat?
- Complete the sentence.

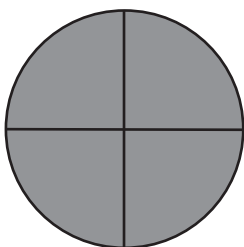
_____ slices

Edward and his friends eat _____ out of _____ equal slices.

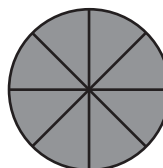
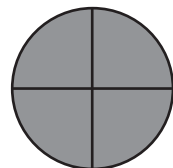
- Write a fraction that names how much pizza the children eat.

Use the pictures to solve.

- Ben cuts a pie into equal pieces. He and his family eat the whole pie. Write a fraction for how much pie they eat.



- Challenge** Meredith cuts a cake into sixths. Circle the cake below that could be Meredith's.



Fractions of a Group

Abigail has 8 balloons. Five of the balloons are red. The rest are blue. What fraction of Abigail's balloons are blue?



1. Draw Abigail's balloons.



2. Color the balloons to show how many are red and how many are blue.
3. How many balloons are there in all? _____ balloons
4. How many of the balloons are blue? _____ balloons
5. What fraction of Abigail's balloons are blue?

Solve.

6. Roger has 10 toy cars. Seven of his cars are green and the rest are blue. What fraction of Roger's cars are blue?

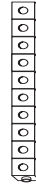
	of the cars are blue.

7. **Challenge** Monica has 100 marbles. Half of her marbles are swirled. The other half are plain. How many of Monica's marbles are swirled?

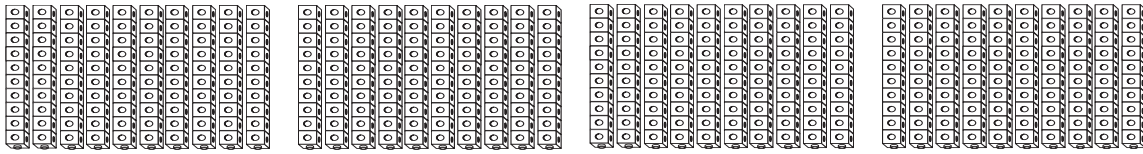
_____ marbles

Hundreds

Siri has 40 sticks of 10 cubes.
How many cubes does Siri have in all?



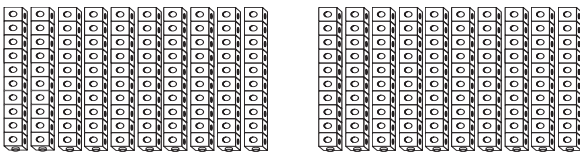
1 stick of 10 cubes



1. How many sticks of 10 cubes does Siri have? 40 sticks
2. Circle each group of 100 cubes.
3. How many hundreds are equal to 40 tens? _____ hundreds
4. How many cubes does Siri have in all? _____ cubes in all

Solve.

5. Dan has 20 sticks of 10 cubes. How many cubes does Dan have in all?



_____ cubes

6. **Challenge** Lucy has 800 cubes. She wants to make sticks of 10 cubes. How many sticks can she make?

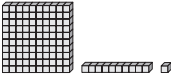
_____ sticks

Hundreds, Tens, and Ones

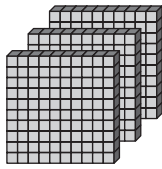
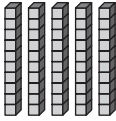

Jeff is thinking of a number. His number has 3 hundreds, 5 tens, and 8 ones.

Show his number using Workmat 5 and .

What is Jeff's number?

- Use Workmat 5 and  to show the hundreds, tens, and ones.

Workmat

Hundreds	Tens	Ones
		

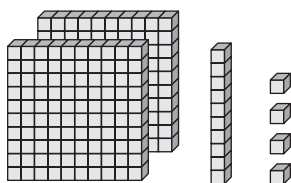
- Write how many hundreds, tens, and ones.

hundreds	tens	ones

- What is Jeff's number? Look at the place value chart. Write the number. _____

Solve.

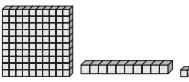
- Dolores is thinking of a number. Her number has 2 hundreds, 1 ten, and 4 ones. What is her number?

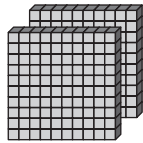
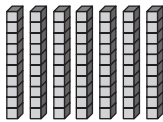



- Challenge** Zach is thinking of a number. His number has 4 tens and 6 ones. It has more hundreds than tens and fewer hundreds than ones. What is Zach's number?

Understand Place Value

Jeff writes the number 273. He wants to know the value of the digit 7. What is the value of that digit in Jeff's number?

1. Use Workmat 5 and  to show Jeff's number.

Workmat		
Hundreds	Tens	Ones
		

2. Write how many hundreds, tens, and ones.

hundreds	tens	ones

3. Find the digit 7 in the chart above.
Which column is it in, hundreds, tens, or ones? _____
4. Jeff's number has 7 _____.
5. What is the value of the digit 7 in Jeff's number? _____

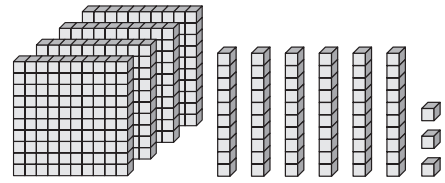
Solve.

6. Scott writes the number 683. What is the value of the digit 6 in Scott's number?
- _____

7. **Challenge** Anita writes a 3-digit number. She uses the digits 6, 7, and 8. The value of the digit 6 is 6. The value of the digit 7 is 700. What is the value of the digit 8 in Anita's number?
- _____

Read and Write 3-Digit Numbers

June uses blocks to show the number four hundred sixty-three. How can she write the number in different ways?



four hundred sixty-three

1. Write how many hundreds, tens, and ones there are.

4 hundreds 6 tens 3 ones

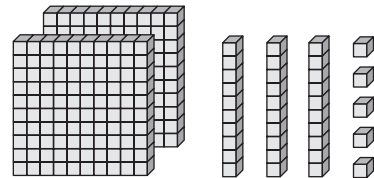
2. Add the hundreds, tens, and ones.

_____ + _____ + _____

3. Use what you know about the place value of each digit to write the number.

Solve.

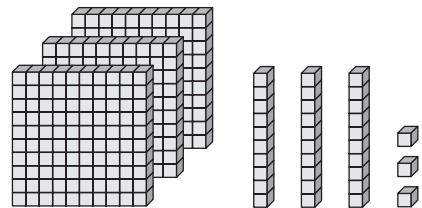
4. Mia uses blocks to show the number two hundred thirty-five. How can she write the number in different ways?



_____ hundreds _____ tens _____ ones

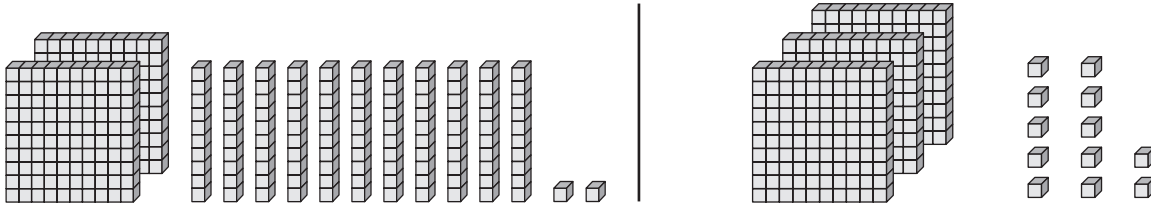
_____ + _____ + _____

5. **Challenge** Tim wants to use blocks to show the number three hundred thirteen. He has too many blocks. Cross out the blocks that Tim does not need.



Different Ways to Show Numbers

Vin uses blocks to show the number 312 in different ways. How many hundreds, tens, and ones does he use in each model?



1. Count the number of hundreds, tens, and ones in Vin's first model.

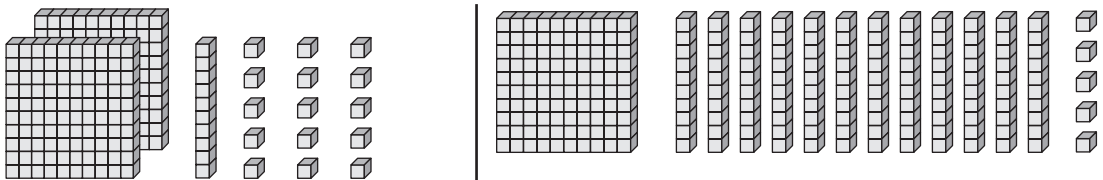
 3 hundreds 1 tens 2 ones

2. Count the number of hundreds, tens, and ones in Vin's second model.

 hundreds tens ones

Solve.

3. Abby uses blocks to show the number 225 in different ways. How many hundreds, tens, and ones does she use in each model?



 hundreds ten ones | hundred tens ones

4. **Challenge** Phil uses blocks to show the number 546. He uses 4 hundreds and 16 ones. How many tens does Phil use?

 tens



Use Graphic Aids

A model is a kind of **graphic aid**. Looking at graphic aids can help you solve problems.

April has 2 dollar bills, 3 dimes, and 1 penny. How much money does she have?

You can look at dollar bills and coins to solve this problem.

How many dollar bills does April have? Show them.

2



How many dimes does April have? Show them.

3



How many pennies does April have? Show them.

1



Now count the money. Start with the dollar bills.

Count: \$1.00, \$2.00, \$2.10, \$2.20, \$2.30, \$2.31

April has \$2.31.

Use dollar bills and coins. Count on.
Write the total amount.

1. Barry has three dollar bills, three quarters, and one nickel. How much money does he have? _____

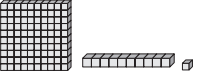
2. Lindy has four dollar bills, seven dimes, one nickel, and one penny. How much money does she have? _____

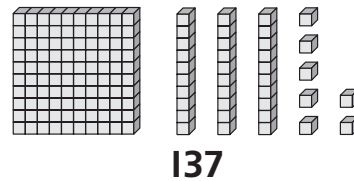
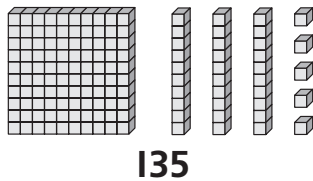
Algebra: Compare Numbers: >, <, or =

Max has 135 paper clips. Will has 137 paper clips.
Who has more paper clips?



paper clip

1. Use  to show the paper clips.



Write >, <, or =.

2. Compare the hundreds.

1 ○ 1

3. If the hundreds are the same, compare the tens.

3 ○ 3

4. If the tens are the same, compare the ones.

5 ○ 7

5. Compare the numbers.

135 ○ 137

6. Who has more paper clips, Max or Will?

Compare the numbers to solve.

7. Dave collects 215 big rocks and 167 small rocks. Does he have more big rocks or small rocks?

8. **Challenge** There are 115 ladybugs by the pond. There were 120 grasshoppers by the pond, but 10 of them hopped away. Are there more ladybugs or grasshoppers by the pond now?

Use Place Value to Compare Numbers

Tommy has 262 letters in his alphabet soup. Indira has 269 letters in her alphabet soup. Who has more letters?



soup

1. Compare the value of the hundreds digits. Write $>$, $<$, or $=$.

2 hundreds \bigcirc 2 hundreds

2. If the hundreds digits are the same, compare the value of the tens digits. Write $>$, $<$, or $=$.

_____ tens \bigcirc _____ tens

3. If the hundreds digits are the same, compare the value of the ones digits. Write $>$, $<$, or $=$.

_____ ones \bigcirc _____ ones

4. Compare the numbers. Write $>$, $<$, or $=$.

262 \bigcirc 269

5. Who has more letters, Tommy or Indira?

Compare the numbers to solve.

6. The library has 252 books about animals. It has 221 books about sports. Does the library have more books about animals or sports?

7. **Challenge** Greg has 75 sets of 10 cubes, with 1 cube left over. Ian has 7 sets of 100 cubes, with 42 cubes left over. Who has more cubes?

Algebra: Order Numbers

Elm Drive School has 238 students. Oak Street School has 317 students. Pine Road School has 294 students. Which school has the most students?



school

1. Compare the numbers of students at Elm Drive School and Oak Street School.

$$\underline{238} < \underline{317}$$

2. Compare the numbers of students at Elm Drive School and Pine Road School.

$$\underline{\quad} \bigcirc \underline{\quad}$$

3. Compare the numbers of students at Oak Street School and Pine Road School.

$$\underline{\quad} \bigcirc \underline{\quad}$$

4. Write the numbers in the correct order. Then write $>$ or $<$.

$$\text{greatest } \underline{\quad} \bigcirc \underline{\quad} \bigcirc \underline{\quad} \text{ least}$$

5. Which school has the most students?

Order the numbers to solve.

6. Quinn has 325 cards. Gary has 258 cards. Scott has 341 cards. Who has the most cards?

7. **Challenge** Abby has 289 pebbles. Ryan has 296 pebbles. Jeb has 8 fewer pebbles than Ryan. Who has the fewest pebbles?



Use Graphic Aids

A table is a kind of **graphic aid**.
Graphic aids show information.
You can use them to help solve problems.

This table shows the number of miles that four people drove.

Miles People Drove	
Person	Number of Miles
Ms. Cain	541
Mr. Tesh	498
Mr. Barr	426
Ms. Rojas	523

Who drove more miles, Ms. Cain or Ms. Rojas?

- Look at the table.
Find the number of miles Ms. Cain drove.

541 miles

- Look at the table. Find the number of miles Ms. Rojas drove.

523 miles

- Compare the numbers of miles.

541 $\circled{>}$ 523

- Ms. Cain drove more miles.

Use the graphic aid to solve.

- Who drove fewer miles, Mr. Barr or Mr. Tesh?

- Who drove more miles than Mr. Tesh but fewer miles than Ms. Cain?

Algebra: Skip-Counting Patterns

Sharel skip-counts to make a pattern.
The first five numbers in her pattern are 345, 355, 365, 375, and 385. What are the next 2 numbers in her pattern?

- Use a number line.
Circle the numbers in Sharel's pattern.



- Draw the jumps on the number line for the first 5 numbers of the pattern.
- What is a rule for Sharel's pattern?
A rule is count by _____.
- Extend the pattern. Use the rule.
Draw 2 more jumps on the number line.
- What are the next 2 numbers in Sharel's pattern?
_____ and _____

Use the number line to solve.

- | | |
|--|--|
| <ol style="list-style-type: none"> Adam makes a pattern.
The first five numbers in his pattern are 360, 365, 370, 375, and 380. What are the next 2 numbers in his pattern?
_____ and _____ | <ol style="list-style-type: none"> Challenge Donna makes a pattern with 7 numbers. The last 5 numbers in her pattern are 370, 380, 390, 400, 410. What are the first 2 numbers in her pattern?
_____ and _____ |
|--|--|

Mental Math: Add On Multiples of 100

There are 157 geese flying.
Then 300 more geese join them.
How many geese are flying now?



goose

- How many geese are flying at first? 157 geese
- How many geese join them? _____ geese
- Write the number sentence to find how many geese are flying now.
_____ + _____ = ?
- Count on by hundreds to add.
157, _____, _____, _____
- How many geese are flying now? _____ geese

Count on hundreds to add.

- In the morning, 138 cars stop at a stop sign. In the afternoon, 400 more cars stop at the stop sign. How many cars stop at the stop sign in all?



car

_____ cars

- Challenge** There are 135 dragonflies flying over the pond. There are 100 dragonflies in the garden. Some more dragonflies are in the bushes. There are 435 dragonflies in all. How many dragonflies are in the bushes?



dragonfly _____ dragonflies

Model 3-Digit Addition: Regroup Ones

There are 127 nickels in a box.
There are 106 nickels in a bag.
How many nickels are there in all?



nickel

1. How many nickels are in the box? 127 nickels
2. How many nickels are in the bag? _____ nickels
3. Write the number sentence to find how many nickels in all. _____ + _____ = ?

4. Use Workmat 5 and  . Add.

5. How many nickels are there in all? _____ nickels

- Use Workmat 5 and  . Solve.

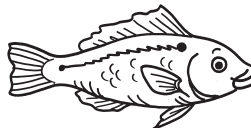
6. There are 144 red marbles in a bag. There are 239 blue marbles in the same bag. How many marbles are in the bag?



marble

_____ marbles

7. **Challenge** There are 215 big fish in the river. There are 39 more little fish than big fish. How many fish are in the river altogether?



fish

_____ fish

Model 3-Digit Addition: Regroup Tens

There are 132 red apples at the store.
There are 184 green apples at the store.
How many apples are at the store?



apple

1. Write the number sentence to find how many apples are at the store.

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = ?$$

2. Look at the ones. Will you have to regroup? _____
3. Look at the tens. Will you have to regroup? _____

4. Use Workmat 5 and  . Add.

5. How many apples are at the store? _____ apples
-

- Use Workmat 5 and  . Solve.

6. Sadie has 175 pennies. Sara has 152 pennies. How many pennies do they have in all?



penny _____ pennies

7. **Challenge** There are 164 big paper clips in a box. There are 147 more small paper clips than big paper clips in the box. How many paper clips are in the box?



paper clip

_____ paper clips

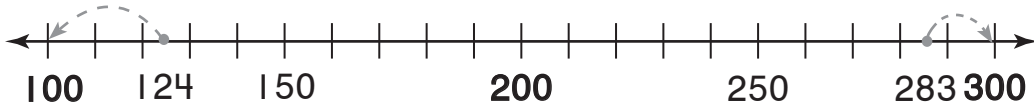
Estimate Sums



bird sticker

Sam has 124 bird stickers. He has 283 mammal stickers. How many stickers does he have in all?

1. Round each number to the nearest hundred.



2. Estimate.

3. Add. Compare your estimate to the sum to see if your answer makes sense.

$$\begin{array}{r} 124 \\ + 283 \\ \hline \end{array}$$

Estimate. Then add.

4. A store has 182 stuffed toy gorillas. It has 297 plastic toy gorillas. How many toy gorillas does the store have in all?

$$\begin{array}{r} 182 \rightarrow \square \\ + 297 \rightarrow + \square \\ \hline \square \end{array}$$

Compare your answer to the sum.

Does your answer make sense? _____

5. **Challenge** Gabe has 107 animal cards. He has about 200 more sports cards than animal cards. Which could be the number of sports cards Gabe has? Circle the correct answer.



animal card

290 380 120



Reread

When you **reread** a problem, you read it again. Rereading can help you find the information you need to solve problems.

In an animal park, there are 178 zebras. In another animal park, there are 126 elephants and 119 zebras. How many zebras are at the two animal parks in all?



zebra

Read the problem. What do you want to find out?

How many zebras are at the two parks in all.

Now reread the problem. Draw a line through the information you do not need. Then solve.

$$\begin{array}{r} 178 \\ + 119 \\ \hline 297 \end{array}$$

THINK:

The question only asks about zebras. I do not need to know about elephants.

There are 297 zebras.

Draw a line through the information you do not need. Solve.

- Erik has 157 paper clips and 142 blue marbles. He has 76 red marbles. How many marbles does Erik have?

_____ marbles

- On Thursday, 253 children visit the zoo. On Friday, 217 children and 122 adults visit the zoo. How many children visit the zoo on Thursday and Friday?

_____ children

Mental Math: Subtract Multiples of 100

There are 876 people at the fair.

Then 400 people leave the fair.

How many people are at the fair now?

1. How many people are at the fair at first? 876 people
 2. How many people leave the fair? _____ people
 3. Write the number sentence to find how many people are at the fair now. _____ - _____ = ?
 4. Count back by hundreds to subtract.
876, _____, _____, _____, _____
 5. How many people are at the fair now? _____ people
-

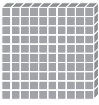

Count back to subtract.

6. There are 589 people watching a baseball game. Then 200 people leave before the game is over. How many people are left?
_____ people
-

7. **Challenge** Leyla has 612 beads. She gives some to her brother. Then she gives 200 to her sister. Now she has 212 beads. How many beads does she give to her brother?
_____ beads

Model 3-Digit Subtraction: Regroup Tens

A store has 351 puzzles. The store sells 128 puzzles. How many puzzles does the store have left?

- How many puzzles does the store have at first? 351
- How many puzzles does the store sell? _____
- Write the numbers that are being subtracted. _____ - _____
- Use Workmat 5 and  . Subtract.
- How many puzzles does the store have left? _____ puzzles

Use Workmat 5 and  . Subtract.

- Mrs. Thomas has 226 pencils. She puts 108 pencils in a box. She puts the rest of the pencils in a drawer. How many pencils are in the drawer?



pencil

_____ pencils

- Challenge** Billy has 251 flower seeds. Jonah has 119 flower seeds. Todd has 15 fewer flower seeds than Billy. How many more flower seeds does Todd have than Jonah?


_____ more flower seeds

Model 3-Digit Subtraction: Regroup Hundreds

There are 527 children in Lila's school.
On Tuesday, 341 children have milk with lunch. The rest of the children have juice.
How many children have juice?



juice

- Write the number sentence to find how many children have juice. _____ - _____ = ?
- Look at the ones. Will you have to regroup? _____
- Look at the tens. Will you have to regroup? _____
- Use Workmat 5 and . Subtract.
- How many children have juice? _____ children

Use Workmat 5 and . Subtract.

- Taylor has 325 beads. She uses 163 beads to make some necklaces.
How many beads does she have left?



bead

_____ beads

- Challenge** Gabe has 249 blocks. He uses 156 blocks to build a castle. He uses 54 blocks to build a bridge to the castle.
How many blocks does he have left?



block

_____ blocks

Add and Subtract Money

Owen has 3 dollar bills, 2 quarters, and 2 dimes. He spends \$2.34. How much money does Owen have now?

1. Count Owen's money. How much does he have? _____
2. How much does Owen spend? _____
3. Do you need to add or subtract? _____
4. Add or subtract to solve.

\$3.70

5. Owen has _____ now.

Add or subtract to solve.

6. Shana has \$4.62. Her sister gives her 2 quarters. How much money does Shana have now?

Now Shana has _____.

-
7. **Challenge** Ruben has 2 dollars, 3 quarters, and 1 nickel. His sister gives him 45¢. Then he spends \$1.08. How much money does Ruben have now?

Now Ruben has _____.

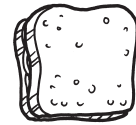


Sequence

Some problems have more than one step.
To solve the problem correctly, each step needs to be done in a certain order, or **sequence**.

Do one step at a time. Add or subtract.

Josie has \$4.25. Her mother gives her \$3.50 for her allowance. Then she buys a sandwich that costs \$2.85. How much money does Josie have now?



sandwich

Josie has \$4.25.

Her mother gives her \$3.50 for her allowance.

Step 1

$$\begin{array}{r} \$4.25 \\ + \$3.50 \\ \hline \$7.75 \end{array}$$

Then she buys a sandwich for \$2.85.

So, now Josie has \$4.90.

Step 2

$$\begin{array}{r} 617 \\ \$7.75 \\ - \$2.85 \\ \hline \$4.90 \end{array}$$

So Josie has \$4.90 left.

Do one step at a time. Add or subtract.

1. Alec and Greg each have \$2.80. Then they spend \$3.35 on some tacos to share. How much money do they have now?



taco

Step 1

Step 2

2. Jenna buys 2 cards at the fair. Each card costs \$1.85. Then she buys a bracelet for \$1.35. How much does Jenna spend in all?



card

Estimate Differences

A store has 396 whistles. The store has 287 kazoos. How many more whistles than kazoos does the store have?



kazoo

1. Estimate. Round each number to the nearest hundred.

—	
—	
—	

2. Subtract. Compare your estimate to the difference to see if your answer makes sense.

$$\begin{array}{r} 396 \\ - 287 \\ \hline \end{array}$$

3. There are _____ more whistles.

Estimate. Then subtract.

4. There are 392 people at the park. Then 203 people go home. How many people are still at the park?

392	→	
— 203	→	
—	—	

Compare your estimate to the difference. Does your answer makes sense? _____

5. **Challenge** Mrs. Shelby sells 298 bracelets at a craft market. She sells about 100 fewer necklaces. Circle the number of necklaces she sells.

311 267 205

Skip-Count Equal Groups

Albert makes 8 strings of beads. He puts 2 beads on each string. How many beads does Albert use in all?

1. How many equal groups are there?

8 equal groups

2. Draw 8 circles to show the 8 groups.

3. Draw 2 ● in each group to show the beads.

4. Skip-count to find how many in all.

_____, _____, _____, _____, _____, _____, _____, _____

5. How many beads does Albert use in all?

_____ beads

Draw equal groups. Skip-count to find how many in all.

6. Sharon sees 6 wagons.
Each wagon has 4 wheels.
How many wheels does
Sharon see in all?

_____ wheels

7. **Challenge** There are
15 children in Ms. Jung's
class. She puts them into
3 equal groups. How many
children are in each group?

There are _____ children in
each group.

Connect Addition to Multiplication

There are 3 boxes. There are 5 checkers in each box. How many checkers are there in all?



checker

1. How many equal groups of checkers are there?

3 equal groups

2. How many checkers are in each group?

_____ checkers

3. Draw equal groups to show the boxes of checkers.

4. Write an addition sentence to find the sum.

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

5. Write a multiplication sentence to find the product.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

6. How many checkers are there in all?

_____ checkers

Draw equal groups. Write the addition sentence.
Write the multiplication sentence.

7. Addie has 4 bags. She puts 2 oranges into each bag. How many oranges does Addie put into bags?

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

_____ oranges

8. **Challenge** Lila has some cups. She has 9 counters. She puts 3 counters into each cup. How many cups does she have?

Lila has _____ cups.

Algebra: Model with Arrays

The children in Mr. Lisi's class line up in 4 rows.

There are 5 children in each row.

How many children are in Mr. Lisi's class?

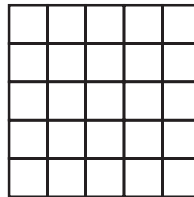
1. How many rows of children are there?

 rows

2. How many children are in each row?

_____ children

3. Color the array to show 4 rows, with 5 in each row.



4. Write a multiplication sentence to find the product.

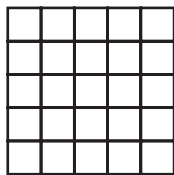
_____ \times _____ = _____

5. There are _____ children in Mr. Lisi's class.

Color the array to show how many.

Write the multiplication sentence.

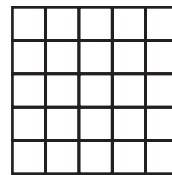
6. Doug puts some tiles into 3 rows. There are 4 tiles in each row. How many tiles does he use in all?



_____ \times _____ = _____

_____ tiles

7. **Challenge** Annie puts 25 chairs in rows. Each row has 5 chairs. How many rows does she make?



_____ \times _____ = _____

Annie makes _____ rows.

Algebra: Multiply in Any Order

José makes 5 stacks of checkers. He puts 3 checkers in each stack. Liza makes 3 equal stacks of checkers. She puts 5 checkers in each stack.

How many checkers does José have?

How many checkers does Liza have?

1. Write a multiplication sentence to show José's checkers.

José has 15 checkers.

$$\begin{array}{c} \underline{5} \\ \uparrow \\ \text{stacks} \end{array} \times \begin{array}{c} \underline{3} \\ \uparrow \\ \text{checkers in} \\ \text{each stack} \end{array} = \underline{15}$$

2. Write a multiplication sentence to show Liza's checkers.

Liza has _____ checkers.

$$\begin{array}{c} \underline{\quad} \\ \uparrow \\ \text{stacks} \end{array} \times \begin{array}{c} \underline{\quad} \\ \uparrow \\ \text{checkers in} \\ \text{each stack} \end{array} = \underline{\quad}$$

Write the multiplication sentences.

3. Mara builds 3 towers with 4 cubes in each tower. Ed builds 4 towers with 3 cubes in each tower. How many cubes does Mara use? How many cubes does Ed use?

Mara _____ \times _____ = _____
_____ cubes

Ed _____ \times _____ = _____
_____ cubes

4. Lin has the same number of toy cars and toy trains. She puts the toy cars into 3 equal rows with 6 cars in each row. How many toy trains does Lin have?

_____ \times _____ = _____
_____ toy trains

Multiply with 1 and 0

Leila puts 4 plates on the table. There are 0 muffins on each plate. How many muffins are on the plates in all?

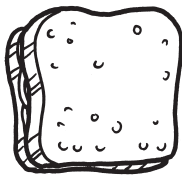


muffin

1. How many plates are there? _____ plates
2. How many muffins are on each plate? _____ muffins
3. Write a multiplication sentence to solve the problem. _____ \times _____ = _____
4. How many muffins are on the plates in all? _____ muffins

Write a multiplication sentence to solve.

5. Joey has 7 paper bags. There is 1 sandwich in each bag. How many sandwiches are there in all?



sandwich

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

_____ sandwiches

6. **Challenge** Paige has 8 flowers and 8 vases. She puts the same number of flowers in each vase. How many flowers does she put in each vase?



flower

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

_____ flower



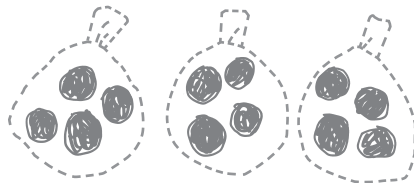
Use Picture Clues

A **picture clue** is information you can get from a picture. You can use picture clues to help you write number sentences.

Vocabulary
picture clues

Bernice has 3 bags.
There are 4 plums in each bag.
How many plums does Bernice have in all?

1. Draw a picture to help you solve the problem.



2. Write a number sentence to find how many plums there are in all.

$$\underline{3} \times \underline{4} = \underline{12}$$

Bernice has 12 plums in all.

Draw a picture to solve.
Write a number sentence.

3. There are 5 children. Each child wears 2 socks. How many socks are on 5 children?



sock



_____ socks

4. Steve has 6 buttons on one shirt and 7 buttons on another shirt. How many buttons are there on both shirts?



button



_____ buttons

Size of Shares

Mr. James has 15 bananas. He wants to divide them into 5 equal groups.

How many bananas will be in each group?



banana

5 equal groups

1. How many equal groups are there?
2. Draw 5 circles to show the equal groups.
3. Use 15 ● to show the bananas.
Put one ● in each group until you have none left.
Draw to show your work.
4. How many ● are in each group? _____
5. How many bananas will be in each group? _____ bananas

Use ●. Draw to show your work. Write how many in each group.



- | | |
|---|---|
| <p>6. Dawn has 16 books. She makes 2 equal stacks of books. How many books are in each stack?</p> <p style="text-align: right; margin-top: 20px;">_____ books</p> | <p>7. Challenge Jason has between 10 and 14 shirts. He divides his shirts into 3 equal piles. How many shirts are in each pile?</p> <p style="text-align: right; margin-top: 20px;">_____ shirts</p> |
|---|---|

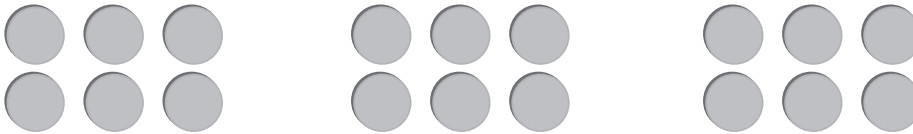
Number of Equal Shares

Mary Lou has 18 stickers.
She wants to put her stickers in a book,
with 6 stickers on each page.
How many pages will have stickers?





sticker

1. Use 18 . Divide the  into groups of 6.



2. Draw a circle around 6 . Draw a circle around another group of 6 . Repeat until all the  are circled.

3. How many groups of 6  did you make? _____ groups
4. How many pages will have stickers? _____ pages

Use . Draw to show your work.
Write how many equal groups.

5. Alison has 15 beads. She makes bracelets, with 3 beads on each bracelet. How many bracelets can she make?

_____ bracelets

6. **Challenge** Sam has some bags. He puts 5 apples in each bag and has no apples left over. Sam has more than 17 but fewer than 22 apples. How many bags of apples does Sam have?

_____ bags

Connect Subtraction to Division

Ms. Webb has 15 balloons.
She gives 5 balloons to each of her children.
How many children get balloons?



balloon

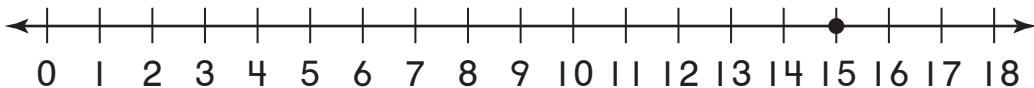
1. How many balloons are there?

15 balloons

How many balloons does each child get?

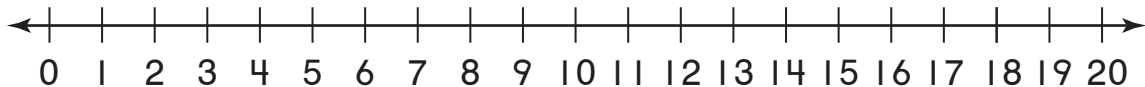
5 balloons

2. Use a number line. Start at 15.
Count back by fives until you reach 0.
Draw the jumps.



3. How many times did you subtract? _____ times
4. How many children get balloons? _____ children

Use a number line to solve.



5. Jill has 12 books. She reads 2 books each week. How many weeks will it take her to read all 12 books?



book

_____ weeks

6. **Challenge** Eli has 20 pencils. He will sharpen 4 pencils each day. If he starts on Monday, on which day will he have all 20 pencils sharpened?



pencil
