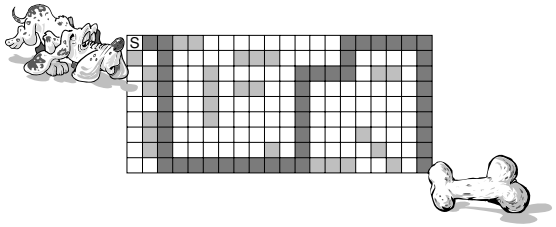
LESSON 12-6 Puzzles, Twisters & Teasers

Bone Tired!

You dog has lost his bone and wants to find it before he takes a nap. Circle the correct symbol to solve each inequality. Then use the number under the correct answer to move through the maze. The first one is done for you.

1. $5w __ 517$	$w = 111$	(>) <	Move 2	spaces right
$555 > 517$		2 5		
2. $3m __ -15$	$m = 2$	(>) <	Move 8	spaces down
$6 > -15$		8 3		
3. $-12y __ -60$	$y = 3$	(>) <	Move 9	spaces right
$-36 > -60$		9 3		
4. $8y __ 16$	$y = 1$	> (<)	Move 6	spaces up
$8 < 16$		8 6		
5. $4x __ 9$	$x = 5$	(>) <	Move 3	spaces right
$20 > 9$		3 7		
6. $25c __ 200$	$c = 4$	> (<)	Move 2	spaces up
$100 < 200$		4 2		
7. $-6r __ -48$	$r = 12$	> (<)	Move 5	spaces right
$-72 < -48$		9 5		
8. $\frac{x}{11} __ 3$	$x = 22$	> (<)	Move 8	spaces down
$\frac{22}{11} < 3$		3 8		



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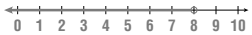
LESSON 12-7 Practice A

Solving Two-Step Inequalities

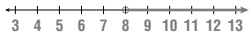
Solve. Cross out each inequality in the box that matches a solution. Then graph each solution set.

$x > 8$	$x < -8$	$x \geq -8$	$x < 8$	$x \geq 8$	$x \leq -8$

1. $3x - 5 < 19$ $x < 8$



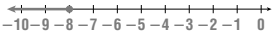
2. $-2x + 12 < -4$ $x > 8$



3. $\frac{x}{4} + 7 \geq 9$ $x \geq 8$

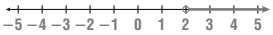


4. $\frac{x}{-2} - 3 \geq 1$ $x \leq -8$



Solve. Then graph each solution set.

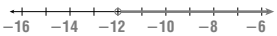
5. $7y - 8 > 6$ $y > 2$



6. $-4d + 15 \leq -1$ $d \geq 4$



7. $\frac{r}{-6} + 5 < 7$ $r > -12$



8. Margie has $100. She wants to buy a book for $20 and some CDs for $15 each. At most, how many CDs can Margie buy?

At most, Margie can buy 5 CD's.

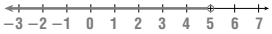
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LESSON 12-7 Practice B

Solving Two-Step Inequalities

Solve. Then graph each solution set on a number line.

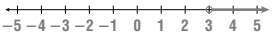
1. $5x - 8 < 17$ $x < 5$



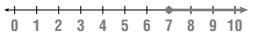
2. $\frac{r}{3} + 5 \geq 9$ $r \geq 12$



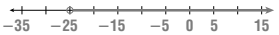
3. $-4n + 8 < -4$ $n > 3$



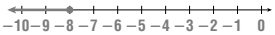
4. $\frac{z}{7} - 6 \geq -5$ $z \geq 7$



5. $\frac{w}{-5} + 4 < 9$ $w > -25$



6. $\frac{u}{2} - 5 \leq -9$ $u \leq -8$



Solve.

7. $-7d + 8 > 29$ $d < -3$

8. $4g - 18 \leq -2$ $g \leq 4$

9. $12 - 3b < 9$ $b > 1$

10. $\frac{a}{-4} - 7 < -2$ $a > -20$

11. $9 + \frac{c}{6} \leq 17$ $c \leq 48$

12. $-\frac{2}{3}p - 8 \geq 4$ $p \leq -18$

13. Fifty students in the seventh grade are trying to raise at least $2,000 for sports supplies. They have already raised $750. How much should each student raise, on average, in order to meet the goal?

On average, each student should raise at least $25.

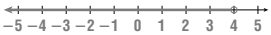
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LESSON 12-7 Practice C

Solving Two-Step Inequalities

Solve. Then graph each solution set on a number line.

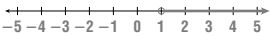
1. $5y + 1 - 8 < 13$ $y < 4$



2. $\frac{r}{8} - 5 - 6 \geq -9$ $r \geq 16$



3. $-7m - 6 < -4 - 9$ $m > 1$



Solve.

4. $\frac{s}{5} - 6 + 3 \geq -5$ $s \geq -10$

5. $\frac{w}{-2} + 15 < 9 - (-3)$ $w > 6$

6. $\frac{u}{3} - 0.5 \leq -9.5$ $u \leq -27$

7. $-4d + 6 - d \leq 21$ $d \geq -3$

8. $6p - 18 - 2p \leq -2$ $p \leq 4$

9. $9h - 20 - 3h < -8$ $h < 2$

10. $\frac{a}{2} - 7\frac{1}{2} + \frac{a}{2} < -2\frac{1}{2}$ $a < 5$

11. $4.5 + \frac{c}{2.3} \leq 6.1$ $c \leq 3.68$

12. $-\frac{2}{3}q - \frac{3}{4} \geq \frac{1}{12}$ $q \leq -1\frac{1}{4}$

13. Max earns $1,800 per month, plus a commission of 3% of his sales. He wants to earn at least $3,000 this month. What amount of sales does Max need this month?

Max needs at least $40,000 in sales this month.

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