LESSON 8-5

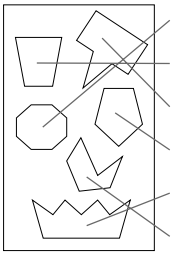
Practice A

Classifying Polygons

Determine whether each figure is a polygon. If it is not, explain why not.

1.  yes
2.  no; open figure
3.  yes
4.  yes
5.  no; segments cross
6.  no; curved figure

Draw a line from each polygon to its correct name.

7. 

octagon
quadrilateral
heptagon
pentagon
nonagon
hexagon

Determine whether each figure is a regular polygon. If it is not, explain why not.

8.  yes
9.  no; all sides and angles not congruent
10. 

no; all angles not congruent

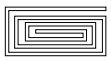
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LESSON 8-5

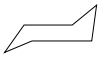
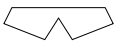
Practice B

Classifying Polygons

Determine whether each figure is a polygon. If it is not, explain why not.

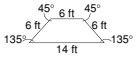
1.  yes
2.  no; line segments cross
3.  no; curved lines
4.  yes
5.  yes
6.  no; not a closed figure

Name each polygon.

7.  decagon
8.  triangle
9.  octagon
10.  hexagon
11.  quadrilateral
12.  heptagon

Name each figure and tell whether it is a regular polygon. If it is not, explain why not.

13.  quadrilateral; no; all angles not congruent
14. 

pentagon; yes
15. 

trapezoid; no; all sides and angles not congruent

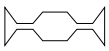
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LESSON 8-5

Practice C

Classifying Polygons

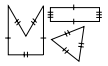
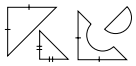
Determine whether each figure is a polygon. If it is not, explain why not.

1.  no; lines cross
2.  yes
3.  no; curved lines
4.  no; open figure
5.  yes
6.  no; lines cross

Name each polygon.

7.  pentagon
8.  decagon
9.  heptagon
10.  nonagon
11.  quadrilateral
12.  octagon

Determine if the figures in each exercise can be put together to form a regular polygon. If so, name the regular polygon.

13.  yes; square
14.  yes; hexagon
15.  no

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LESSON 8-5

Reteach

Classifying Polygons

A **polygon** is a closed figure that starts and stops at the same point. A polygon is made up of line segments that do not cross.

Determine whether each figure is a polygon. If it is not, explain why not.

1. yes
2. no; not closed
3. no; segments cross

Polygons can be classified by the number of sides or angles. The number of sides and angles is the same.

Complete the table.

	Name	Number of Sides	Number of Angles
4.	Triangle	3	3
5.	Quadrilateral	4	4
6.	Pentagon	5	5
7.	Hexagon	6	6
8.	Heptagon	7	7
9.	Octagon	8	8
10.	Nonagon	9	9
11.	Decagon	10	10

All the sides of a **regular polygon** have the same length, and all the angles have the same measure.

Determine whether each is a regular polygon. If it is not, explain why not.

12.

no; angles not equal
13.

yes
14.

no; sides not equal

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