Practice B
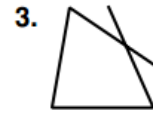
LESSON
6-1 *Properties and Attributes of Polygons*

Tell whether each figure is a polygon. If it is a polygon, name it by the number of its sides.
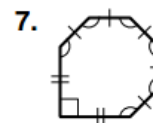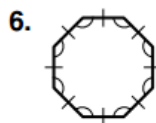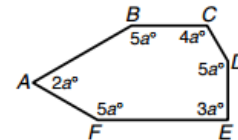
1.

2.

3.

_____   _____   _____

4. For a polygon to be regular, it must be both equiangular and equilateral.
Name the only type of polygon that must be regular if it is equiangular. _____

Tell whether each polygon is regular or irregular. Then tell whether it is concave or convex.
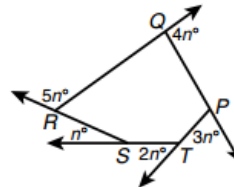
5.

6.

7.

8. Find the sum of the interior angle measures of a 14-gon.   _____

9. Find the measure of each interior angle of hexagon *ABCDEF*.

_____

_____

10. Find the value of *n* in pentagon *PQRST*.

_____

Before electric or steam power, a common way to power
machinery was with a waterwheel. The simplest form of
waterwheel is a series of paddles on a frame partially
submerged in a stream. The current in the stream
pushes the paddles forward and turns the frame.
The power of the turning frame can then be used
to drive machinery to saw wood or grind grain. The
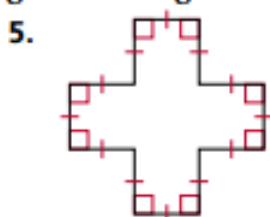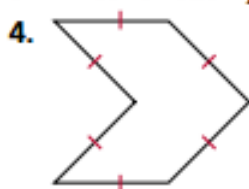waterwheel shown has a frame in the shape of a regular octagon.

11. Find the measure of one interior angle of the waterwheel.   _____

12. Find the measure of one exterior angle of the waterwheel.   _____

Tell whether each figure is a polygon. If it is a polygon, name it by the number of its sides.

1.

2.

3.
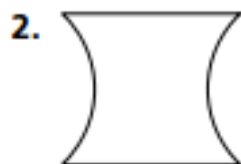
Tell whether each polygon is regular or irregular. Tell whether it is concave or convex.

4.

5.

6.

7. Find the measure of each interior angle of pentagon *ABCDE*.

8. Find the sum of the interior angle measures of a convex heptagon.

9. Find the measure of each interior angle of a regular 15-gon.

10. Find the value of *x* in polygon *FGHJKL*.

11. Find the measure of each exterior angle of a regular dodecagon.

A $3x°$

E $2x°$

$(x + 20)°$ B

$(2x - 15)°$

D

$(2x + 5)°$

C

$4x°$

G $5x°$

$3x°$ F

H

L

J $4x°$

$5x°$ K $3x°$