

8.1-8.4 Quiz Review

Geometry

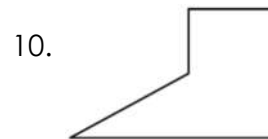
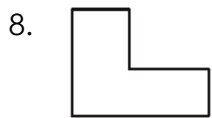
Name: _____

Hour: _____

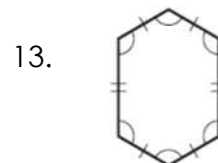
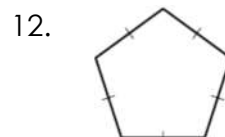
Complete the statement.

1. A polygon is _____ if no line that contains a side of the polygon passes through the interior of the polygon.
2. A polygon that is not convex is called _____.
3. A polygon is equilateral if all of its _____ are congruent.
4. A polygon is equiangular if all of its _____ are congruent.
5. A polygon is _____ if it is both equilateral and equiangular.
6. The sum of the measures of the _____ angles of a convex polygon with n sides is $(n - 2) \cdot 180^\circ$
7. The sum of the measures of the _____ angles of a convex polygon is 360° .

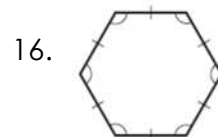
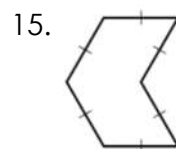
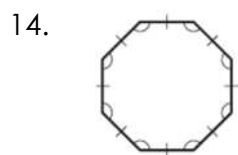
Decide whether the polygon is convex or concave.



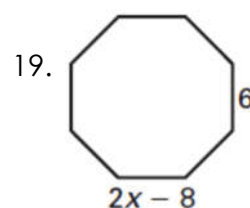
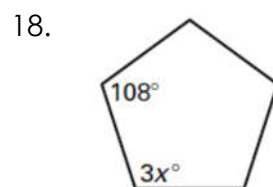
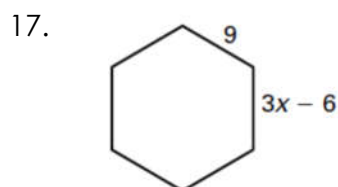
Decide whether the polygon is *equilateral*, *equiangular*, or *neither*.



Decide whether the polygon is regular. Explain your answer.



In Exercises 15-17, the polygons are regular. Find the value of x .



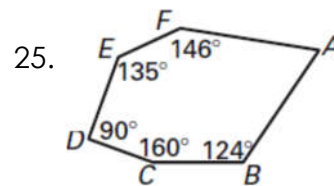
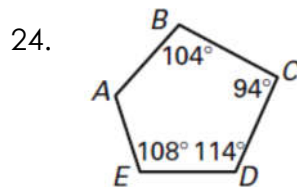
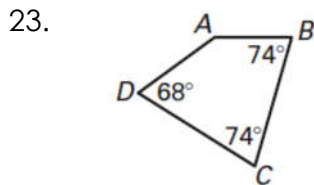
Find the sum of the measures of the interior angles of the convex polygon with n sides.

20. $n = 5$

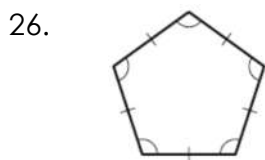
21. $n = 6$

22. $n = 8$

Find the measure of $\angle A$.



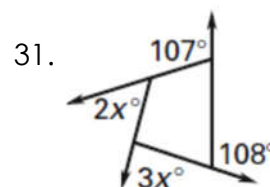
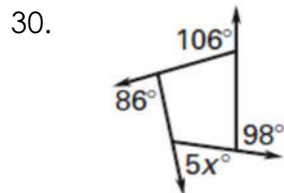
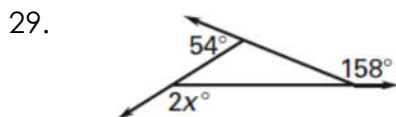
Find the measure of an interior angle of the regular polygon.



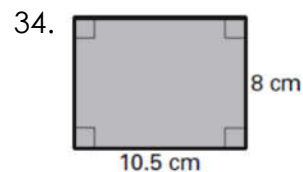
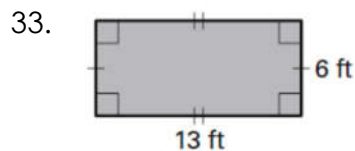
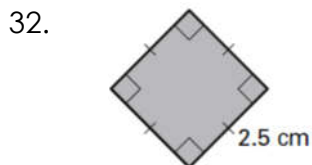
27. Regular hexagon

28. Regular 9-gon

Find the value of x .



Find the area of the quadrilateral.

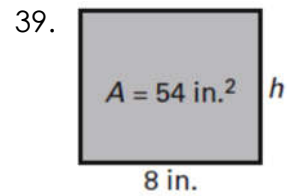
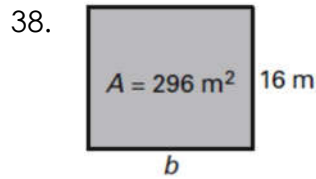
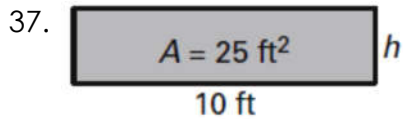


Sketch the figure and find its area.

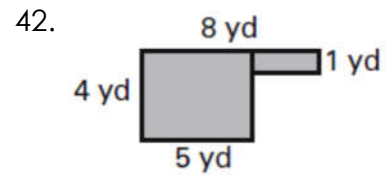
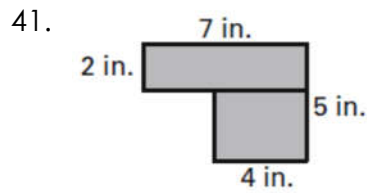
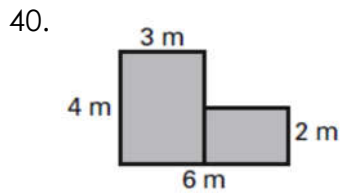
35. a rectangle with a base of 7.2 meters and height of 4 meters.

36. a square with side lengths of 3.5 yards

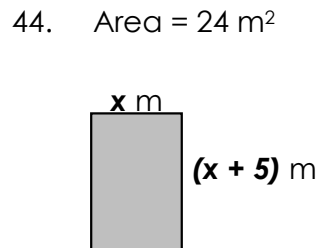
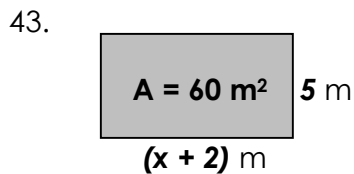
In Exercises 37-39, A gives the area of the rectangle. Find the missing side length.



In Exercises 40-42, find the area of the polygon made up of rectangles.



In Exercises 43-44, find the value of x for each rectangle.



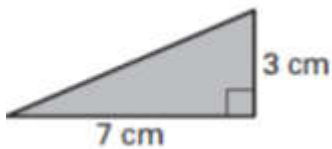
Complete the statement.

45. The _____ of a triangle is the perpendicular segment from a vertex to a line containing the opposite side, called the _____ of the triangle.

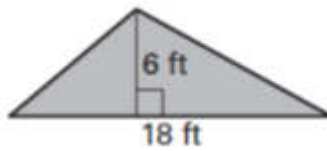
46. If two polygons are similar with a scale factor of a:b, then the ratio of their areas is _____.

Find the area of the shaded triangle.

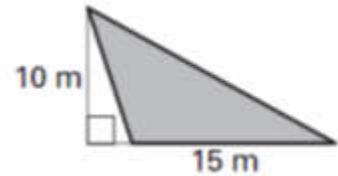
47.



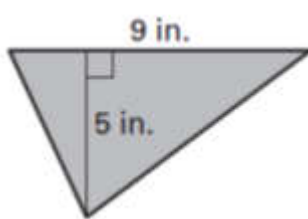
48.



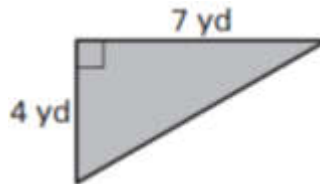
49.



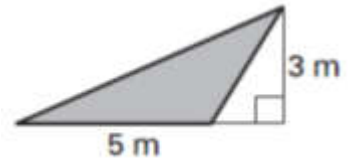
50.



51.

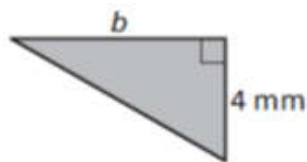


52.

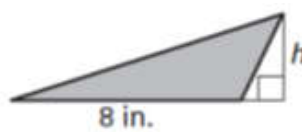


A gives the area of the triangle. Find the missing measure.

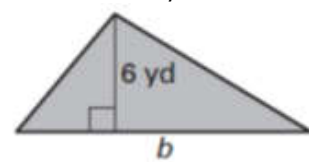
53. $A = 14 \text{ mm}^2$



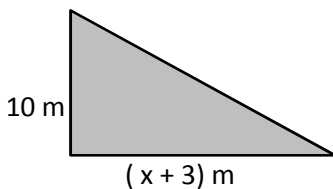
54. $A = 12 \text{ in}^2$



55. $A = 45 \text{ yd}^2$



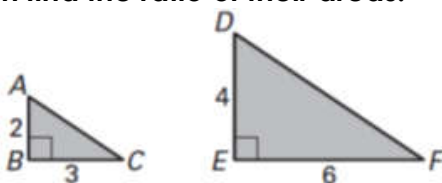
56. If the area = 65 m^2 , find the value of x .



57. The area of a triangle is 7 in^2 . The base of the triangle is 5 inches longer than the height. Find the base and the height.

Triangles ABC and DEF are similar. Find the scale factor of $\triangle ABC$ to $\triangle DEF$. Then find the ratio of their areas.

58.



59.

