ASSIGNMENT

==Include <u>units</u> in all answers.==

For #1-4, find the perimeter and area of each parallelogram. Round values to the nearest <u>tenth</u>.

1.

30 in.

10 in. ⌐60°

Perimeter = _____   Area = _____

2.

12 m

10 m

60°

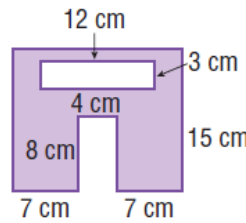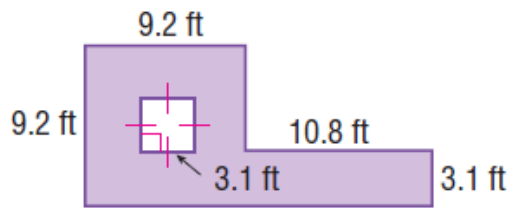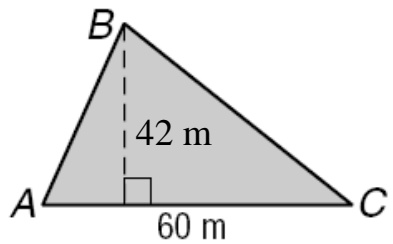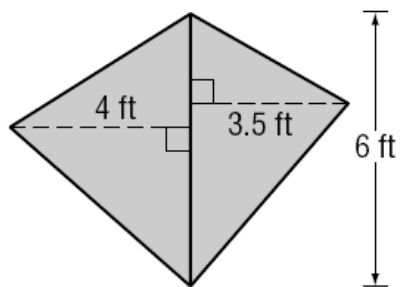Perimeter = _____   Area = _____

3.

13 yd

10 yd

45°

Perimeter = _____   Area = _____

4.

15 in.

45°

10 in.

Perimeter = _____   Area = _____

For #5-8, find the area of each shaded figure. Round values to the nearest <u>tenth</u>.

5.

12 cm

3 cm

4 cm

15 cm

8 cm

7 cm   7 cm

Area = _____

6.

9.2 ft

9.2 ft

10.8 ft

3.1 ft

3.1 ft

Area = _____

7.

B

42 m

A

60 m

C

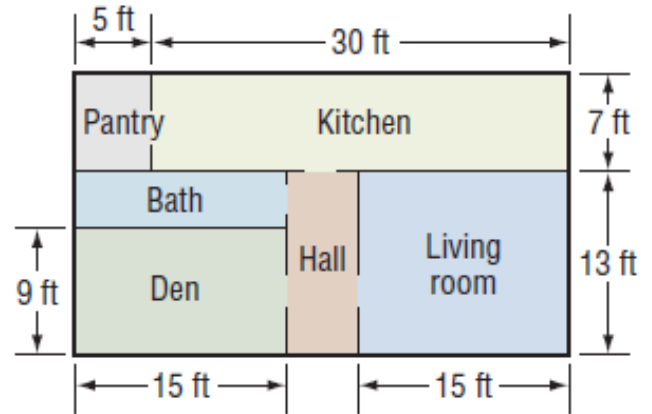Area = _____

8.

4 ft   3.5 ft

6 ft

Area = _____

9. The Warners are planning to re-carpet part of the first floor of their house.
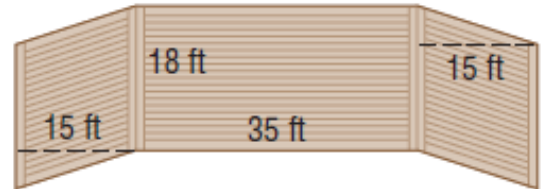Find the total area of the living room, den, and hall.

Area of Living Room:

Area of Den:

Area of Hall:

Total Area:

5 ft		30 ft	7 ft
Pantry	Kitchen		
Bath			13 ft
9 ft	Den	Hall	Living room
15 ft		15 ft	

---

10. Mr. Kang is planning to stain his deck. To know how much stain to buy, he needs to find the area of the deck. Find the area.

18 ft   15 ft
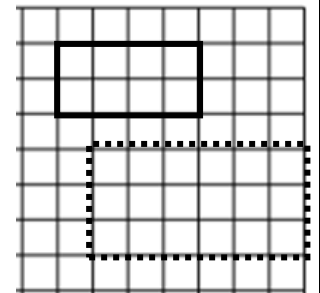
15 ft   35 ft

Total area = _____

---

11. A car has a length of 8 feet and a width of 4.8 feet. If the width of a model of the car is 6 inches, what is the length of the model?

length = _____

12. Determine whether the dilation shown is an enlargement, a reduction, or a congruence transformation. Then determine the scale factor. The dashed figure is the dilation image.
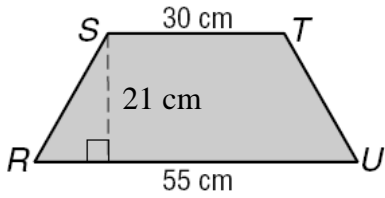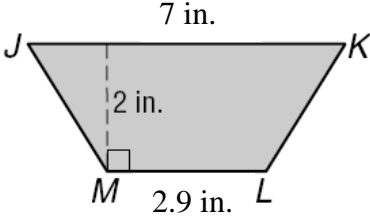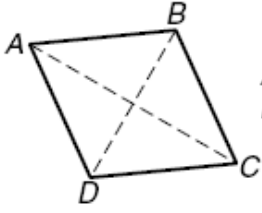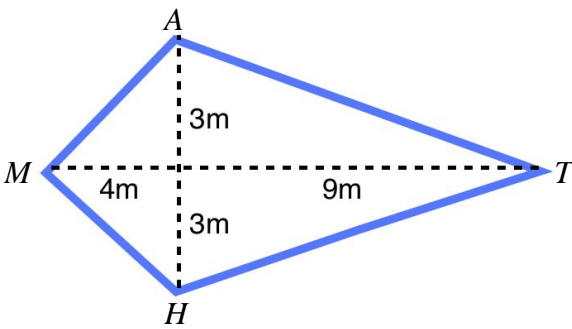
Type of dilation:

_____
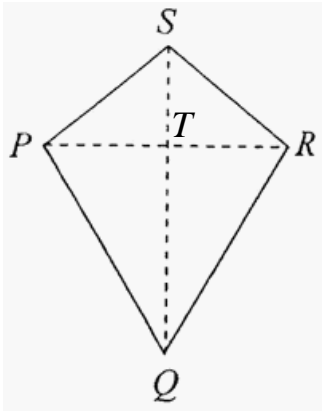
Scale factor: _____
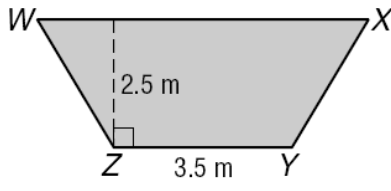
<u>ASSIGNMENT</u>

For #1-5, find the area of each figure. Round values to the nearest <u>tenth</u>.

1.	**2.**	**3.** rhombus $ABCD$

1.

S _30 cm_ T

21 cm

R
55 cm
U

Area = _____

2.

7 in.

J
K

2 in.

M 2.9 in. L

Area = _____

3. rhombus $ABCD$

B

A

$AC = 14$ cm
$BD = 10$ cm

D
C

Area = _____

4. Kite $MATH$

A

3m

M · · · · · · · · · · · · · · · · · T
4m   9m

3m

H

Area = _____

5. Kite $PSRQ$ if $PR = 16$ cm, $ST = 6$ cm, and $PQ = 17$ cm.

S

T

P · · · · · · · · · · · R

Q

Area = _____

6. Trapezoid $WXYZ$ has an area of 11.25 m². Find the length of the WX.

W
X

2.5 m

Z   3.5 m   Y

WX = _____

7. A rhombus has an area of 133 cm², and the length of one diagonal is 14 cm. Find the length of the other diagonal.

length = _____

For #8 and 9, find the area of each quadrilateral given the coordinates of the vertices.

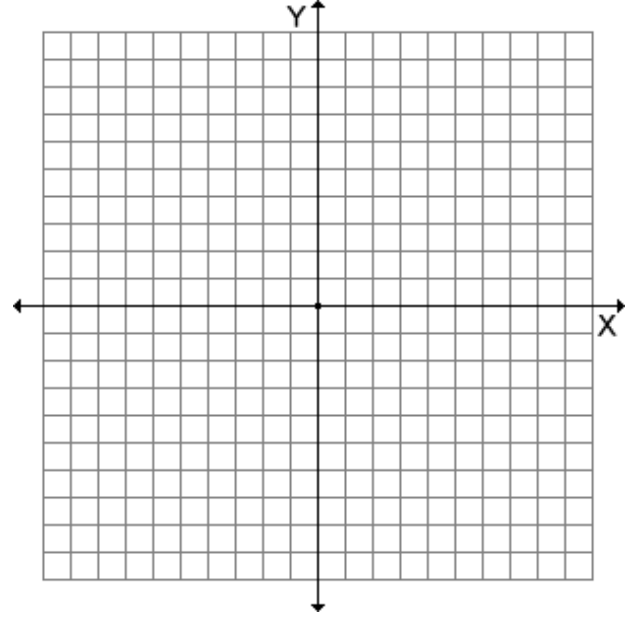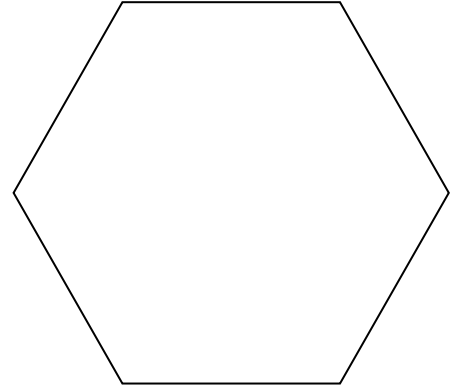|	
8. trapezoid $ABCD$ $A(-5, 3)$, $B(3, 3)$, $C(6, -3)$, $D(-8, -3)$ Area = _____	**9.** rhombus $HIJK$ $H(4, -3)$, $I(2, -7)$, $J(0, -3)$, $K(2, 1)$ Area = _____
10. Find the value of y to the nearest hundredth. 19, 27, y $y \approx$ _____	**11.** Find the value of x to the nearest hundredth. 28, x, 49° $x \approx$ _____
12. Find the value of x. 11, 17, x, $x + 7$ $x =$ _____	**13.** Find CD. 1.8 D, F, C, 6, G 2.4, E $CD =$ _____
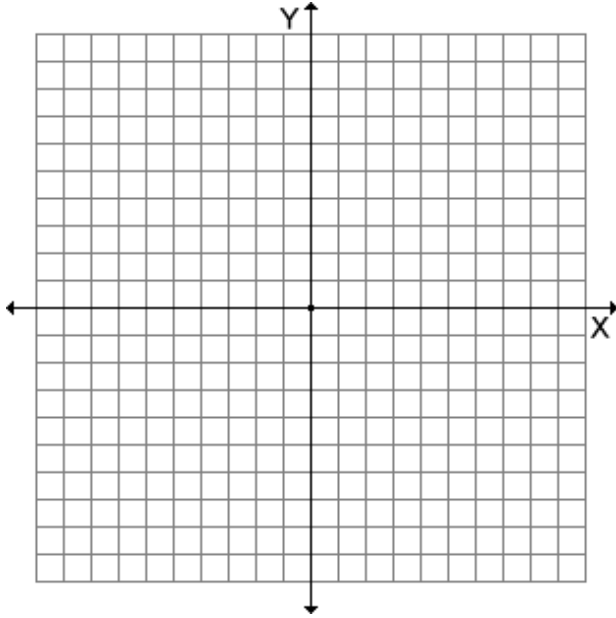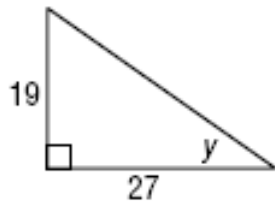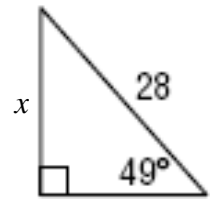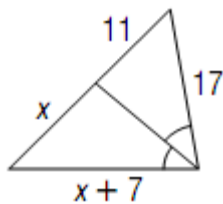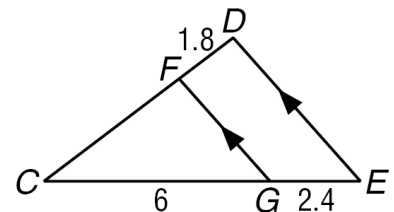
ASSIGNMENT

Round values to the nearest hundredth.

1. Find the area of a regular hexagon with a side length of 4 inches.
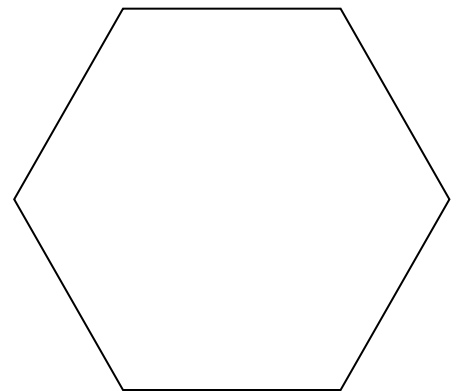
Area = _____

2. Find the area of a regular pentagon with a perimeter of 45 feet.
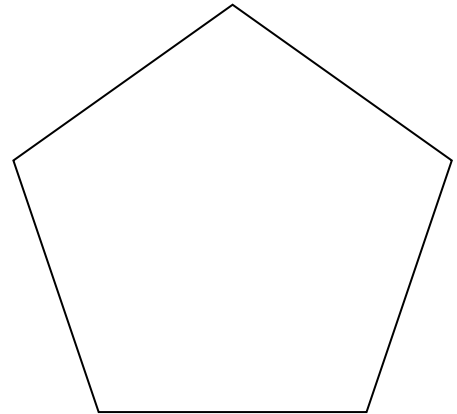
Area = _____

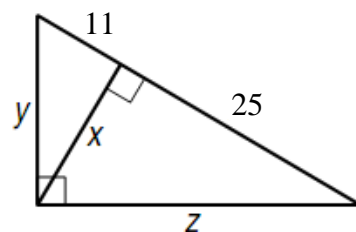**3.** Find the area of a regular hexagon with an apothem length of 8.7 cm.

Area = _____

4. Find the area of an equilateral triangle that has a perimeter of 27 meters.

Area = _____

5. Find the values of x, y, and z. Write your answers as a decimal rounded to the nearest hundredth.
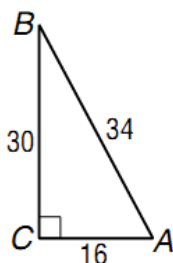
$x \approx$ _____ $y \approx$ _____ $z \approx$ _____

6. Find each indicated trigonometric ratio. Write the answers as reduced fractions.
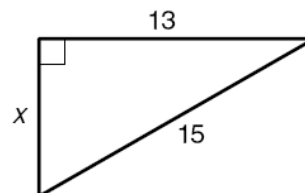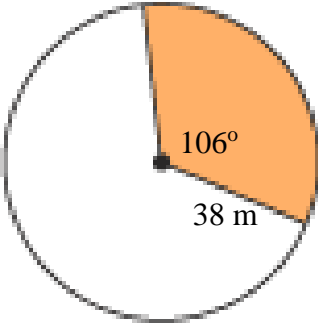
a. $\sin B$

b. $\cos B$

c. $\tan B$

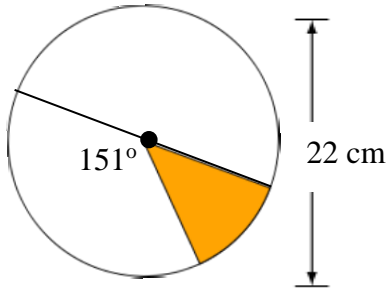**7.** Find the value of x to the nearest hundredth.

$x \approx$ _____

Geometry B
10.4 Areas of Circles and Sectors of Circles
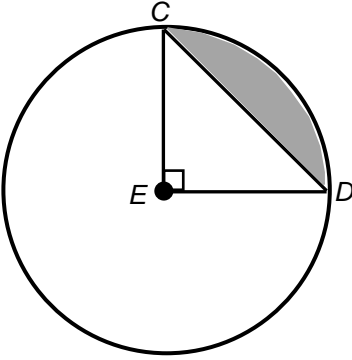
Name _____

Hour _____ Date _____
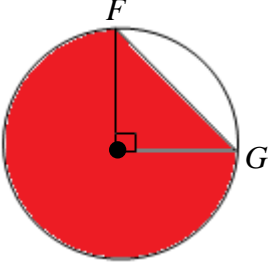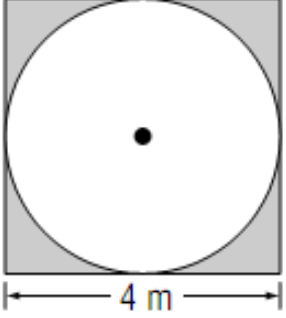
For #1-6, find the area of each shaded region. Round values to the nearest <u>hundredth</u>.

1.

106°

38 m

Area = _____

2.

151°

22 cm

Area = _____

3. $CD = 20\sqrt{2}$

C

E

D

Area = _____

4. $FG = 17\sqrt{2}$

F

G

Area = _____

5.

4 m

Area = _____

6.

28 cm

34 cm

21 cm

40 cm
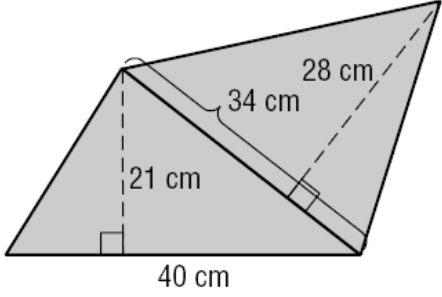
Area = _____

Find the area of each figure. Round values to the nearest <u>hundredth</u>.

7. The figure below is a kite.
 	
10cm 3cm
 	
5cm
 	
Area = _____
	8.
	
	B ———————— A
	  60°
	  16
	C
	  22 D
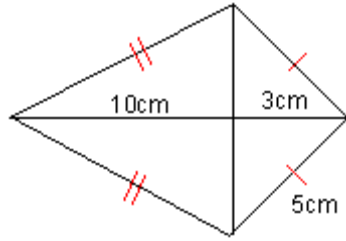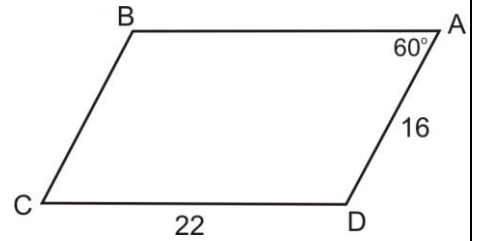	
	Area = _____

---

9. In circle P, $m\angle EPD = 52°$ and $FP = 16$ cm. Find the indicated values.

a. $m\overset{\frown}{EH}$ = _____

b. $m\overset{\frown}{DGE}$ = _____

c. length of $\overset{\frown}{EH}$ = _____

d. length of $\overset{\frown}{DGE}$ = _____

D   *H*

E   *P*   *G*

F

---
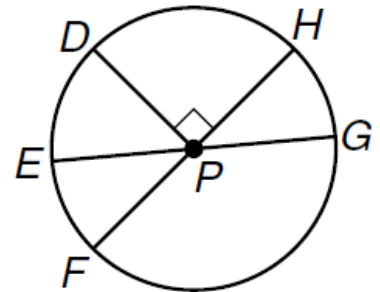
10. Find the value of x if $\overline{BC}$ is tangent is circle A at point B.
 	
x D   C
A
  8 in
5 in
  B
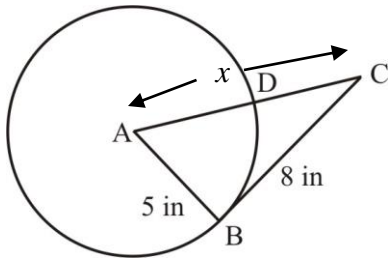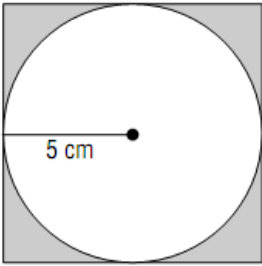 	
$x =$ _____
	11. Find the value of x if $\overline{RS}$ is tangent is circle R at point Q.
	
	Q
	12 ft T 8 ft
	
	R x ft S
	
	$x =$ _____
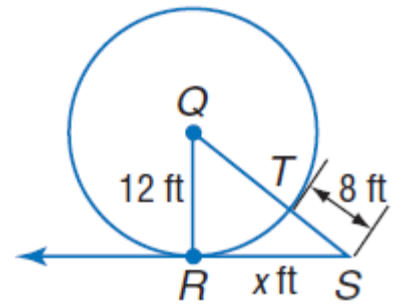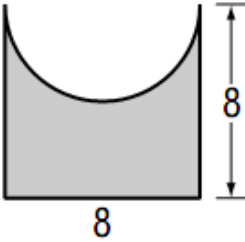
Geometry B   Name _____
  10.5 Areas of Irregular Polygons in the Coordinate Plane   Hour _____ Date _____
                                  ASSIGNMENT
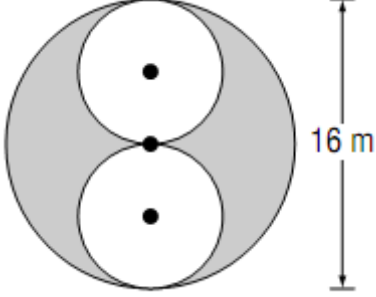**For #1-4, find the area of each <mark>shaded</mark> figure. Round values to the nearest <u>hundredth</u>.**
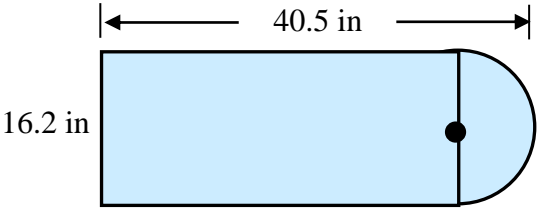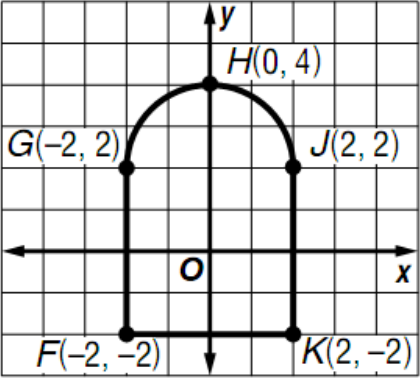
1.	2.
5 cm Area = _____	16 m Area = _____
3. 8 8 Area = _____	4. 40.5 in 16.2 in Area = _____

For #5-8, find the area of each figure. Round values to the nearest <u>hundredth</u>.
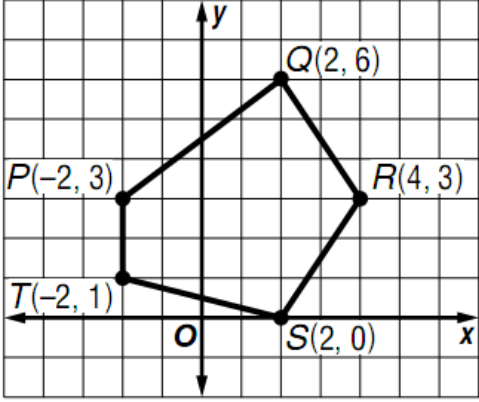
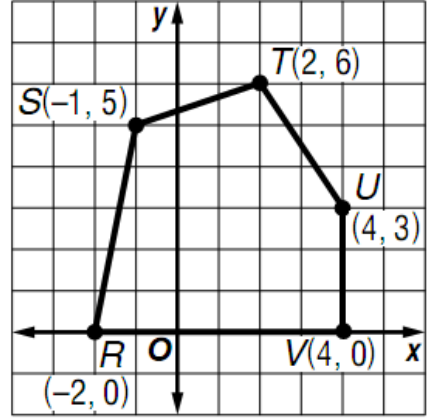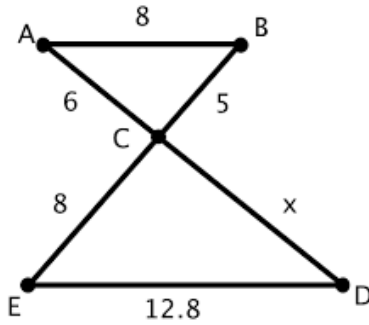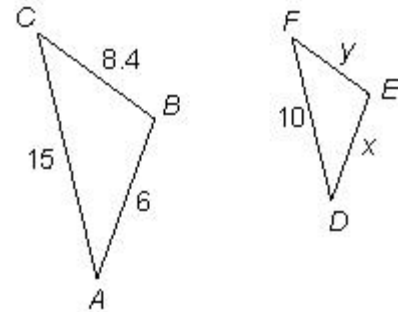| 5.	6.
H(0, 4) G(−2, 2) J(2, 2) O x F(−2, −2) K(2, −2) Area = _____	Q(2, 6) P(−2, 3) R(4, 3) T(−2, 1) O S(2, 0) x Area = _____

7.
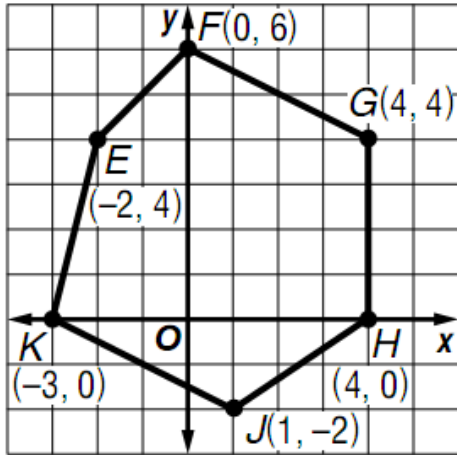
Area = _____

8.

Area = _____

9. $\triangle ACB \sim \triangle DCE$. Find the value of x.

$x =$ _____

10. $\triangle ABC \sim \triangle DEF$. Find the perimeter of $\triangle DEF$.
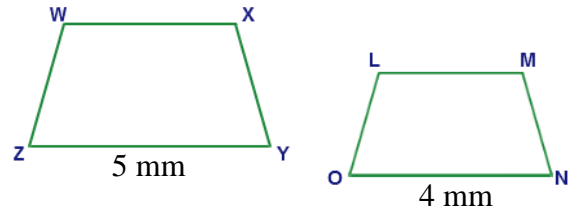

Perimeter = _____

ASSIGNMENT

1. $\triangle ABC \sim \triangle EGF$.	**2.** Quadrilateral $WXYZ \sim$ quadrilateral $LMNO$.

1. $\triangle ABC \sim \triangle EGF$.

A

E

8 cm

C

11 cm

B

F

G
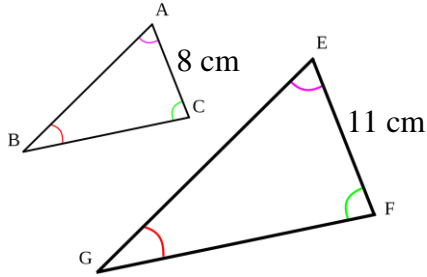
a. What is the scale factor from $\triangle ABC$ to $\triangle EGF$?

b. What is the ratio of their perimeters?

c. What is the ratio of their areas?

d. If the area of $\triangle ABC$ is 40 cm², what is the area of $\triangle EGF$?

2. Quadrilateral $WXYZ \sim$ quadrilateral $LMNO$.

W   X

L   M

Z   Y

5 mm

O   N

4 mm

a. What is the scale factor from $WXYZ$ to $LMNO$?

b. What is the ratio of their perimeters?

c. What is the ratio of their areas?

d. If the area of $WXYZ$ is 14 mm², what is the area of $LMNO$?

3. The ratio of the areas of two squares is 16:25.

a. What is the ratio of their sides?

b. The larger square has sides of length 10 centimeters. What is the side length of the smaller square?

4. Jose bought carpeting for his rectangular living room and for his dining room. His living room is similar to his dining room and 1.5 times as long. If it costs $1000 for the carpet for the dining room, how much should it have cost to buy the carpet for the living room?
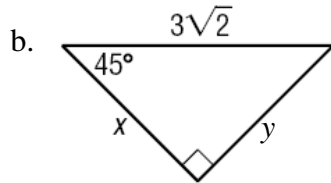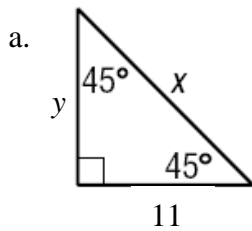
5. Write the equation of the circle graphed below.
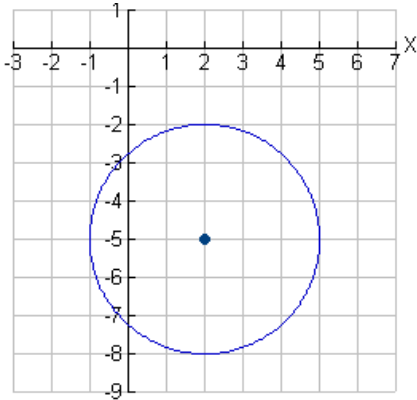
Equation: _____

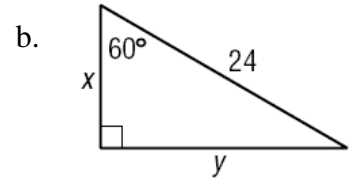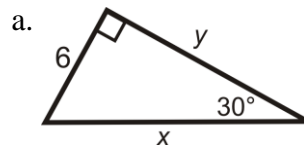**6.** Write the equation of the circle graphed below.
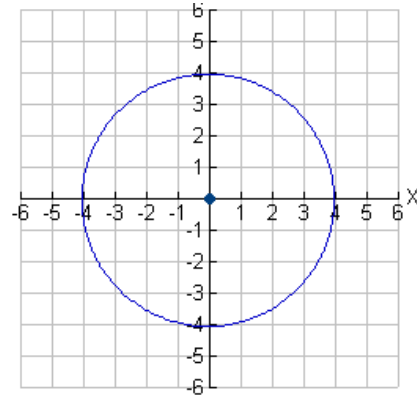
Equation: _____

7. Find the values of *x* and *y* in the following triangles.

a.

$45°$ X

y

$45°$

11

b.

$3\sqrt{2}$

$45°$

x

y

x = _____ y = _____   x = _____ y = _____

8. Find the values of *x* and *y* in the following triangles.

a.

6

y

$30°$

x

b.

$60°$ 24

x

y

x = _____ y = _____   x = _____ y = _____

9. A ship is on the surface of the water, and its radar detects a submarine at a distance of 238 feet from the ship. If the angle of depression is 24°, how deep underwater is the submarine?

10. A homeowner is the construct a ramp to his front door to make it wheelchair accessible. How long must the ramp be if the door is 4 feet above ground level and the angle of elevation from ground level to the base of the door is 20°?