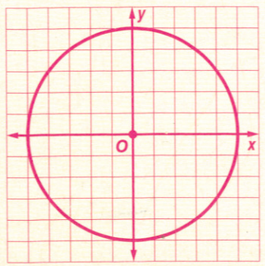
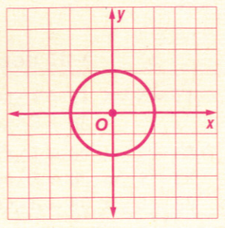
esson 10-8

1. $(x-1)^2+(y+2)^2=4$
2. $x^2+y^2=16$
3. $(x+3)^2+(y+4)^2=11$
4. $(x-3)^2+(y+1)^2=9$
5. $(x-6)^2+(y-12)^2=49$
6. $(x-4)^2+y^2=16$
7. $(x-6)^2+(y+6)^2=121$
8. $(x+5)^2+(y-1)^2=1$

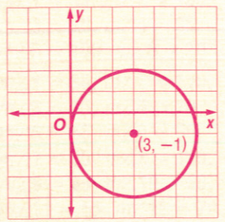
9.



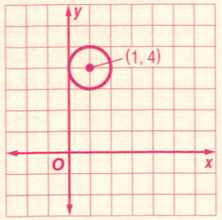
0.



1.



2.



Extra Practice

Lesson 10-8 (pages 575–580)

Write an equation for each circle. 1–8. See margin.

1. center at $(1, -2)$, $r = 2$
2. center at origin, $r = 4$
3. center at $(-3, -4)$, $r = \sqrt{11}$
4. center at $(3, -1)$, $d = 6$
5. center at $(6, 12)$, $r = 7$
6. center at $(4, 0)$, $d = 8$
7. center at $(6, -6)$, $d = 22$
8. center at $(-5, 1)$, $d = 2$

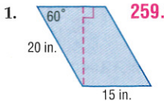
Graph each equation. 9–12. See margin.

9. $x^2 + y^2 = 25$
10. $x^2 + y^2 - 3 = 1$
11. $(x-3)^2 + (y+1)^2 = 9$
12. $(x-1)^2 + (y-4)^2 = 1$

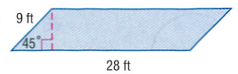
13. Find the radius of a circle whose equation is $(x+3)^2 + (y-1)^2 = r^2$ and contains $(-2, 1)$. 1
14. Find the radius of a circle whose equation is $(x-4)^2 + (y-3)^2 = r^2$ and contains $(8, 3)$. 4

Lesson 11-1 (pages 595–600)

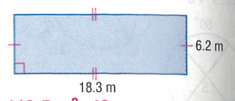
Find the area and perimeter of each parallelogram. Round to the nearest tenth if necessary.

1. 

259.8 in², 70 in.

2. 

178.2 ft², 74 ft

3. 

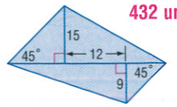
113.5 m², 49 m

COORDINATE GEOMETRY Given the coordinates of the vertices of a quadrilateral, determine whether it is a *square*, a *rectangle*, or a *parallelogram*. Then find the area of the quadrilateral.

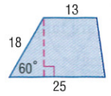
4. $Q(-3, 3)$, $R(-1, 3)$, $S(-1, 1)$, $T(-3, 1)$ square, 4 units²
5. $A(-7, -6)$, $B(-2, -6)$, $C(-2, -3)$, $D(-7, -3)$ 5. rectangle, 15 units²
6. $L(5, 3)$, $M(8, 3)$, $N(9, 7)$, $O(6, 7)$ parallelogram, 12 units²
7. $W(-1, -2)$, $X(-1, 1)$, $Y(2, 1)$, $Z(2, -2)$ square, 9 units²

Lesson 11-2 (pages 601–609)

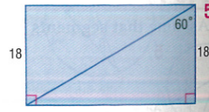
Find the area of each quadrilateral.

1. 

432 units²

2. 

296.2 units²

3. 

561.2 units²

COORDINATE GEOMETRY Find the area of trapezoid $ABCD$ given the coordinates of the vertices.

4. $A(1, 1)$, $B(2, 3)$, $C(4, 3)$, $D(7, 1)$ 8 units²
5. $A(-2, 2)$, $B(2, 2)$, $C(7, -3)$, $D(-4, -3)$ 37.5 units²
6. $A(1, -1)$, $B(4, -1)$, $C(8, 5)$, $D(1, 5)$ 30 units²
7. $A(-2, 2)$, $B(4, 2)$, $C(3, -2)$, $D(1, -2)$ 16 units²

COORDINATE GEOMETRY Find the area of rhombus $LMNO$ given the coordinates of the vertices.

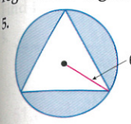
8. $L(-3, 0)$, $M(1, -2)$, $N(-3, -4)$, $O(-7, -2)$ 16 units²
9. $L(-3, -2)$, $M(-4, 2)$, $N(-3, 6)$, $O(-2, 2)$ 8 units²
10. $L(-1, -4)$, $M(3, 4)$, $N(-1, 12)$, $O(-5, 4)$ 64 units²
11. $L(-2, -2)$, $M(4, 4)$, $N(10, -2)$, $O(4, -8)$ 72 units²

Lesson 11-3 (pages 610–616)

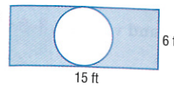
Find the area of each regular polygon. Round to the nearest tenth.

1. a square with perimeter 54 feet 182.3 ft²
2. a triangle with side length 9 inches 35.1 inches²
3. an octagon with side length 6 feet 173.8 ft²
4. a decagon with apothem length of 22 centimeters 1572.6 cm²

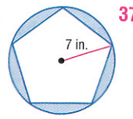
Find the area of each shaded region. Assume that all polygons that appear to be regular are regular. Round to the nearest tenth.

5. 

66.3 cm²

6. 

61.7 ft²

7. 

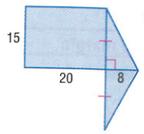
37.4 in²

Lesson 11-4 (pages 617–621)

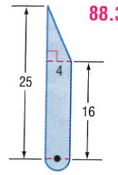
Find the area of each figure. Round to the nearest tenth if necessary.

1. 

187.2 units²

2. 

420 units²

3. 

88.3 units²

COORDINATE GEOMETRY The vertices of an irregular figure are given. Find the area of each figure.

4. $R(0, 5)$, $S(3, 3)$, $T(3, 0)$ 4.5 units²
5. $A(-5, -3)$, $B(-3, 0)$, $C(2, -1)$, $D(2, -3)$ 15.5 units²
6. $L(-1, 4)$, $M(3, 2)$, $N(3, -1)$, $O(-1, -2)$, $P(-3, 1)$ 24 units²

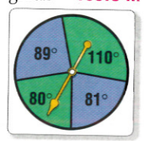
Lesson 11-5 (pages 622–627)

Find the total area of the sectors of the indicated color. Then find the probability of spinning the color indicated if the diameter of each spinner is 20 inches.

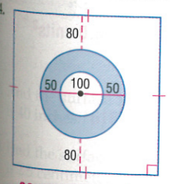
1. orange ≈62.8 in²; 0.20

2. blue ≈87.3 in²; ≈0.28

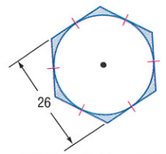
3. green ≈165.8 in²; ≈0.53



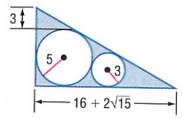
Find the area of the shaded region. Then find the probability that a point chosen at random is in the shaded region.

4. 

≈23,561.9 units², ≈0.18

5. 

≈54.5 units², ≈0.09

6. 

≈47.6 units²; ≈0.31

Extra Practice