Math 084 W2010 Worksheet 3.3 v02
Interest Exercises
Dressler

Name $\qquad$

Use a formula for perimeter or area to solve the problem.
1)

8 ft


Find the perimeter of the figure.
2)


Find the perimeter of the figure.
3)


Find the area of the triangle.
4)


Find the area of the triangle.
5)


Find the area of the rectangle.
6)


Find the area of the trapezoid.
7)


Find the area of the square.
8)

3 ft


Find the area of the triangle.
9) The length of a rectangle is 106 in . and the width is 68 in . Find its perimeter.
10) The width of a room is 9 feet, and the area of the room is 108 square feet. Find the room's length.

Solve.
11) To trim the edges of a rectangular table cloth, 54 feet of lace are needed. The length of the table cloth is exactly one-half its width. What are the dimensions of the table cloth?
12) A rectangular carpet has a perimeter of 146 inches. The length of the carpet is 47 inches more than the width. What are the dimensions of the carpet?
13) The length of a rectangular room is 3 feet longer than twice the width. If the room's perimeter is 186 feet, what are the room's dimensions?
14)


The drawing shows the end of a building that is to be bricked. If the area of the side of a brick used is $\frac{1}{10} \mathrm{sq} . \mathrm{ft}$, find the number of bricks needed to completely cover the side of the building.
15)

82 ft


A homeowner wants to know how much grass seed to buy. First the size of the yard must be determined. Use th drawing to determine how many square feet are in the yard.

Use the formula for the area or circumference of a circle to solve the problem. Where applicable, express answers in terms of $\pi$.
16)


Find the area of the circle.
17)


Give the exact circumference.
18)


Give the exact circumference.
19) The circumference of a circle is $22 \pi$ meters. Find the circle's radius.
20) The circumference of a circle is $22 \pi$ meters. Find the circle's diameter.

Solve.
21) Which one of the following is a better buy: a 16 -inch pizza for $\$ 8$ or two 10 -inch pizzas for $\$ 7$.
22) Find the area of the skating rink. Use $\pi=3.14$ and round to the nearest tenth.

23) Find the area of the window. Use $\pi=3.14$ and round to the nearest tenth.


6 dm
24) The rectangular part of the field shown below is 187 yd long and the diameter of each semicircle is 14 yd . Find the cost of fertilizing the field at $\$ 0.45$ per square yard. Use $\pi=3.14$ and round to the nearest cent.


Find the volume of the figure. Where applicable, express answers in terms of $\pi$.
25)


14 in.

Use the relationship among the three angles of any triangle to solve the problem.
26) Two angles of a triangle are $30^{\circ}$ and $30^{\circ}$. Find the third angle.
27) Two angles of a triangle are $30^{\circ}$ and $40^{\circ}$. Find the third angle.
28) Two angles of a triangle are $40^{\circ}$ and $20^{\circ}$. Find the third angle.
29) Two angles of a triangle are $27^{\circ}$ and $101^{\circ}$. Find the third angle.
30) Two angles of a triangle are $36^{\circ}$ and $105^{\circ}$. Find the third angle.
31) Two angles of a triangle are $19^{\circ}$ and $54^{\circ}$. Find the third angle.
32) One of the base angles of an isosceles triangle is $29^{\circ}$. Find the measures of the other two angles. (An isosceles triangle has two equal base angles.)
33) One of the base angles of an isosceles triangle is $40^{\circ}$. Find the measures of the other two angles. (An isosceles triangle has two equal base angles.)
34) One of the base angles of an isosceles triangle is $36^{\circ}$. Find the measures of the other two angles. (An isosceles triangle has two equal base angles.)
35) One angle of a triangle is 3 times as large as another. The measure of the third angle is $55^{\circ}$ greater than that of the smallest angle. Find the measure of each angle.
36) One angle of a triangle is 2 times as large as another. The measure of the third angle is $100^{\circ}$ greater than that of the smallest angle. Find the measure of each angle.
37) One angle of a triangle is 2 times as large as another. The measure of the third angle is $140^{\circ}$ greater than that of the smallest angle. Find the measure of each angle.
38) A triangle has angles of $(4 x)^{\circ},(3 x+7)^{\circ}$, and $(2 x+2)^{\circ}$. Find the measure of each angle.
39) A triangle has angles of $(4 x)^{\circ},(3 x+6)^{\circ}$, and $(2 x+3)^{\circ}$. Find the measure of each angle.
40) A triangle has angles of $(4 x)^{\circ},(3 x+8)^{\circ}$, and $(2 x+1)^{\circ}$. Find the measure of each angle.
41) Two angles of a triangle are $10^{\circ}$ and $30^{\circ}$. Find the third angle.

Find the measure of the indicated angle.
42) Find the measure of the complement of $17^{\circ}$.
43) Find the measure of the complement of $56^{\circ}$.
44) Find the measure of the complement of $47^{\circ}$.
45) Find the measure of the supplement of $60^{\circ}$.
46) Find the measure of the supplement of $55^{\circ}$.
47) Find the measure of the supplement of $52^{\circ}$.
48) Find the measure of the supplement of $110^{\circ}$.
49) Find the measure of the supplement of $139^{\circ}$.
50) Find the measure of the supplement of $159^{\circ}$.
51) The angle's measure is $50^{\circ}$ more than that of its complement.
52) The angle's measure is $30^{\circ}$ more than that of its complement.
53) The angle's measure is $40^{\circ}$ more than that of its complement.
54) The angle's measure is $30^{\circ}$ more than that of its supplement.
55) The angle's measure is $70^{\circ}$ more than that of its supplement.
56) The angle's measure is $20^{\circ}$ more than that of its supplement.
57) The angle's measure is $80^{\circ}$ more than triple that of its supplement.
58) The angle's measure is $60^{\circ}$ more than triple that of its supplement.
59) The angle's measure is $20^{\circ}$ more than triple that of its supplement.
60) The angle's measure is $60^{\circ}$ more than that of its complement.
61) The angle's measure is $60^{\circ}$ more than that of its supplement.

## Answer Key

Testname: 03.3V02

1) 20 ft
2) 14.8 yd
3) $56 \mathrm{~km}^{2}$
4) $367.5 \mathrm{~km}^{2}$
5) $0.0054 \mathrm{ft}^{2}$
6) $111.55 \mathrm{yd}^{2}$
7) $100 \mathrm{mi}^{2}$
8) $19.5 \mathrm{ft}^{2}$
9) 348 in .
10) 12 feet
11) length: 9 feet; width: 18 feet
12) 60 by 13 inches
13) Width $=30 \mathrm{ft}$; length $=63 \mathrm{ft}$
14) 3080 bricks
15) $4410 \mathrm{ft}^{2}$
16) $64 \pi \mathrm{yd}^{2}$
17) $50 \pi \mathrm{~km}$
18) $8 \pi \mathrm{in}$.
19) 11 m
20) 22 m
21) 16 -in. pizza
22) 1364.2 sq. ft
23) 56.1 sq. dm
24) $\$ 1247.34$
25) 2744 in. ${ }^{3}$
26) $120^{\circ}$
27) $110^{\circ}$
28) $120^{\circ}$
29) $52^{\circ}$
30) $39^{\circ}$
31) $107^{\circ}$
32) $29^{\circ}, 122^{\circ}$
33) $40^{\circ}, 100^{\circ}$
34) $36^{\circ}, 108^{\circ}$
35) $25^{\circ}, 75^{\circ}, 80^{\circ}$
36) $20^{\circ}, 40^{\circ}, 120^{\circ}$
37) $10^{\circ}, 20^{\circ}, 150^{\circ}$
38) $40^{\circ}, 64^{\circ}, 76^{\circ}$
39) $41^{\circ}, 63^{\circ}, 76^{\circ}$
40) $39^{\circ}, 65^{\circ}, 76^{\circ}$
41) $140^{\circ}$
42) $73^{\circ}$
43) $34^{\circ}$
44) $43^{\circ}$
45) $120^{\circ}$
46) $125^{\circ}$
47) $128^{\circ}$
48) $70^{\circ}$

Answer Key
Testname: 03.3V02
49) $41^{\circ}$
50) $21^{\circ}$
51) $70^{\circ}$
52) $60^{\circ}$
53) $65^{\circ}$
54) $105^{\circ}$
55) $125^{\circ}$
56) $100^{\circ}$
57) $155^{\circ}$
58) $150^{\circ}$
59) $140^{\circ}$
60) $75^{\circ}$
61) $120^{\circ}$

