Review 3
MGF 1106 Broward College

Geometry

Find the requested angle.

1) Supplement of 144° 1) _____

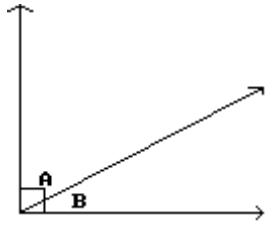
A) 54° B) 288° C) 216° D) 36°

2) Complement of 72° 2) _____

A) 108° B) 18° C) 144° D) 288°

Find the measure of the angles.

3) 3) _____

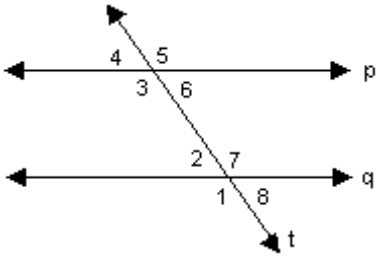


∠A = (3x - 3)°, ∠B = (x + 5)°

A) 15° and 30° B) 27° and 63° C) 17° and 34° D) 60° and 120°

Use the properties of parallel lines to solve the problem.

4) If p ∥ q and m∠8 = 55°, what are the measures of the other angles? 4) _____



A) m∠2 = m∠4 = m∠6 = 55° , m∠1 = m∠3 = m∠5 = m∠7 = 135°
B) m∠2 = m∠4 = m∠6 = 55°, m∠1 = m∠3 = m∠5 = m∠7 = 125°
C) m∠2 = m∠4 = m∠6 = 55° , m∠1 = m∠3 = m∠5 = m∠7 = 35°
D) m∠5 = m∠6 = m∠7 = 55° , m∠1 = m∠2 = m∠3 = m∠4 = 125°

Identify the curve as simple, closed, both, or neither.

5) 5) _____

A) Neither B) Both C) Simple D) Closed

6) 6) _____

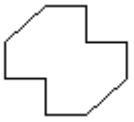
A) Closed B) Simple C) Both D) Neither

7) 7) _____

A) Closed B) Simple C) Neither D) Both

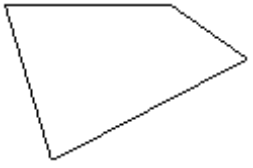
Decide whether the figure is convex or not convex.

8) 8) _____



A) Convex B) Not convex

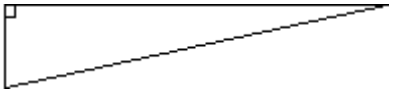
9) 9) _____



A) Not convex B) Convex

Classify the triangle as acute, right, or obtuse and as equilateral, isosceles, or scalene.

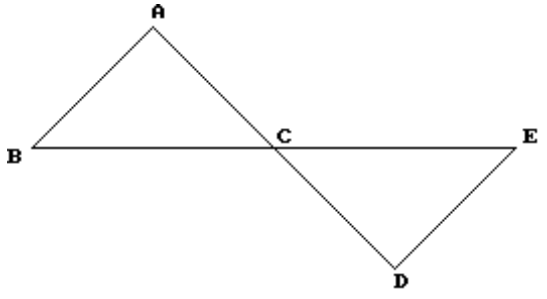
10) 10) _____



A) Right, scalene B) Obtuse, equilateral
C) Obtuse, scalene D) Acute, scalene

Give the measure of the missing angle using the similar triangles below.

11) $\angle B$ 11) _____

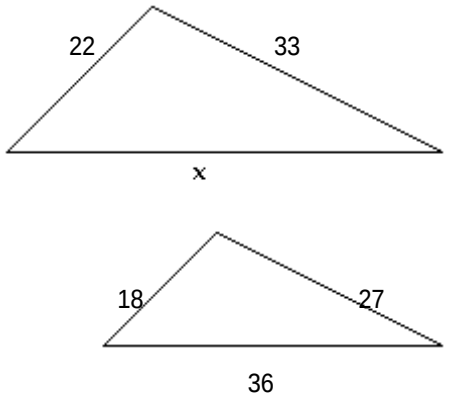


$\triangle ABC \sim \triangle DEC$, $\overline{AC} = 8$ cm, $\angle E = 58°$

A) 8 cm B) 58° C) 30° D) 92°

The two triangles below are similar. Find the unknown side lengths.

12) 12) _____



A) x = 55 B) x = 44 C) x = 41 D) x = 36

Solve the problem.

13) A triangle drawn on a map has sides of lengths 7.0 cm, 10 cm, and 14 cm. The shortest of the corresponding real-life distances is 105 km. Find the longest of the real-life distances. Round to the nearest unit. 13) _____

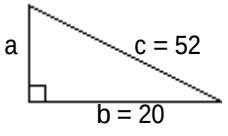
A) 147 km B) 150 km C) 210 km D) 53 km

14) A church steeple casts a shadow 109 ft long, and at the same time a 9.0-ft post casts a shadow 5.0 ft long. How high is the steeple? Round to the nearest unit. 14) _____

A) 196 ft B) 9 ft C) 61 ft D) 128 ft

a and b represent the two legs of a right triangle, while c represents the hypotenuse. Find the length of the unknown side.

15) 15) _____



A) a = 49 B) a = 48 C) a = 56 D) a = 36

16) a = 18 m, b = 24 m 16) _____

A) c = 21 m B) c = 30 m C) c = 29 m D) c = 16 m

There are various formulas that will generate Pythagorean triples. Use the specified formula and specified values to generate a Pythagorean triple.

17) If m is an odd positive integer greater than 1, then 17) _____

$$\left(m, \frac{m^2 - 1}{2}, \frac{m^2 + 1}{2} \right)$$

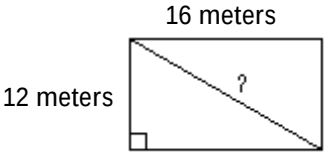
is a Pythagorean triple .

Use this method with the value m = 5 to generate a Pythagorean triple.

A) (5, 8, 18) B) (5, 12, 13) C) (5, 24, 26) D) (6, 12, 13)

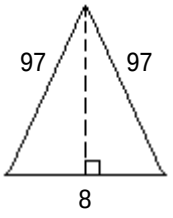
Solve the problem.

18) The length of a rectangle is 16 meters, and the width is 12 meters. Find the measure of the diagonal of the rectangle. 18) _____



A) 25 meters B) 19 meters C) 20 meters D) 21 meters

19) 19) _____

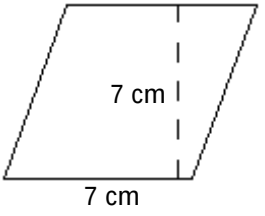


Find the area.

A) $8\sqrt{9393}$ B) $8\sqrt{9345}$ C) $4\sqrt{9393}$ D) $4\sqrt{9345}$

Find the area.

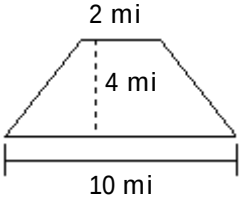
20) 20) _____



(a parallelogram)

A) 28 cm^2 B) 24.5 cm^2 C) 14 cm^2 D) 49 cm^2

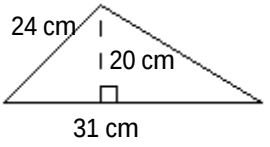
21) 21) _____



(a trapezoid)

A) 400 mi^2 B) 24 mi^2 C) 20 mi^2 D) 16 mi^2

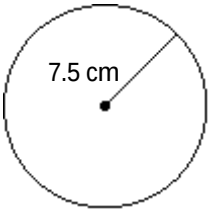
22) 22) _____



A) 200 cm^2 B) 240 cm^2 C) 620 cm^2 D) 310 cm^2

Find the area of the circle. Use 3.14 for π. Round results to two decimal places in necessary

23) 23) _____



A) 176.63 cm^2 B) 47.1 cm^2 C) 94.2 cm^2 D) 706.5 cm^2

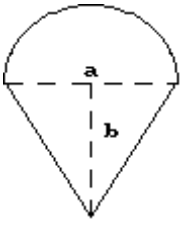
One of the values r (radius), d (diameter), C (circumference), or A (area) is given for a particular circle. Find the indicated value. Leave π in your answer.

24) r = 20 cm; C = ? 24) _____

A) 20π cm B) 80 cm C) 40 cm D) 40π cm

Find the area of the figure. Use 3.14 for π. Round approximations to the nearest tenth.

25) 25) _____



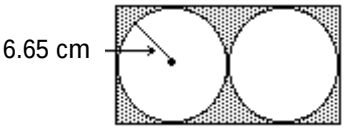
a = 10 m, b = 6 m

A) 108.5 m^2 B) Not enough data

C) 99.2 m^2 D) 69.2 m^2

Find the area of the shaded region in the figure. Round results to the nearest unit.

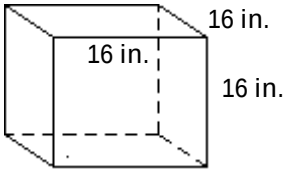
26) Find the shaded area in the figure. 26) _____



A) 38.0 cm^2 B) 215 cm^2

C) 75.9 cm^2 D) Not enough information.

Find the volume.

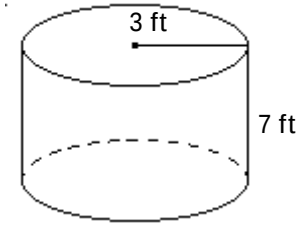
27) 

27) _____

A) 4096 in.^{3} B) 256 in.^{3} C) 48 in.^{3} D) 512 in.^{3}

28) Find the volume of the circular cylinder below. Use 3.14 for π.

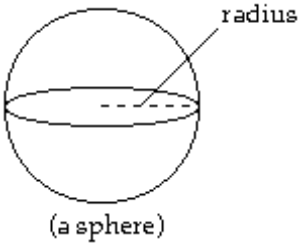
28) _____



A) 791.28 ft^3 B) 197.82 ft^3 C) 65.94 ft^3 D) 131.88 ft^3

29) A sphere with radius 4.0 m. Use 3.14 for π. Round your answer to the nearest thousandth.

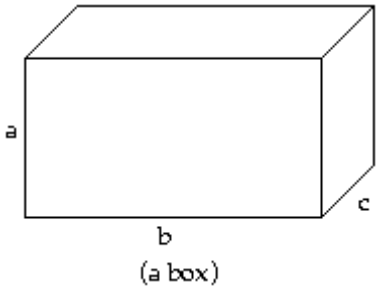
29) _____



A) 267.947 m^3 B) 2143.573 m^3 C) 66.987 m^3 D) 150.72 m^3

Find the total surface area of the given space figure.

30) 30) _____



a = 2 ft, b = 4 ft, c = 2 ft

A) 20 ft^2 B) 48 ft^2 C) 40 ft^2 D) 32 ft^2

Answer Key
Testname: REVIEW03

1) D
2) B
3) B
4) B
5) B
6) D
7) B
8) B
9) B
10) A
11) B
12) B
13) C
14) A
15) B
16) B
17) B
18) C
19) C
20) D
21) B
22) D
23) A
24) D
25) D
26) C
27) A
28) B
29) A
30) C