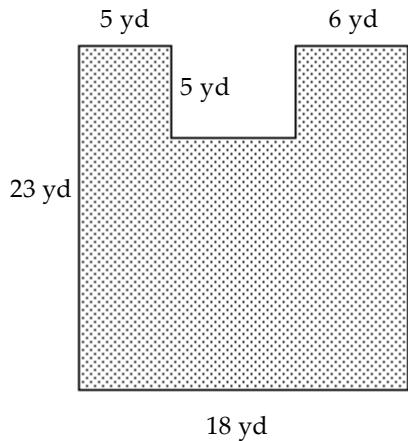


Santa Monica College  
Practicing Geometry

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the area of the shaded region.

1)



1) \_\_\_\_\_

A)  $384 \text{ yd}^2$

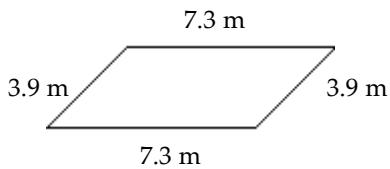
B)  $389 \text{ yd}^2$

C)  $379 \text{ yd}^2$

D)  $74 \text{ yd}^2$

Find the perimeter of the polygon.

2)



2) \_\_\_\_\_

A) 22.4 m

B) 15.1 m

C) 11.2 m

D) 18.5 m

Solve the problem.

3)

A yard in the shape of a square measures 15 ft on each side. A triangular area with a height of 4 ft and a base of 7.5 ft is dug up for a flower bed. How much yard area is left over?

3) \_\_\_\_\_

A)  $210 \text{ ft}^2$

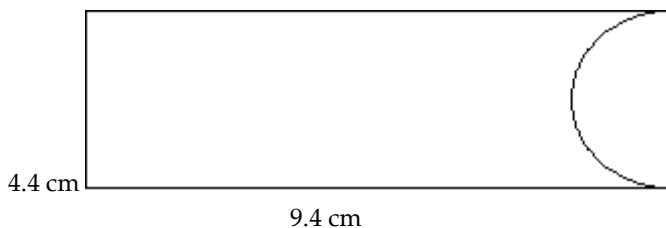
B)  $195 \text{ ft}^2$

C)  $97.5 \text{ ft}^2$

D)  $240 \text{ ft}^2$

Find the area of the figure. Use 3.14 for  $\pi$ .

4)



4) \_\_\_\_\_

A)  $33.7612 \text{ cm}^2$

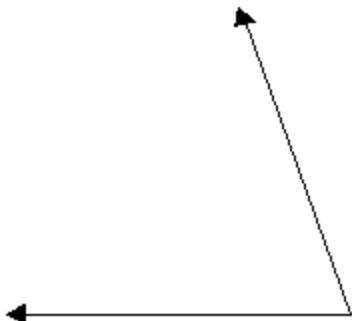
B)  $16.8806 \text{ cm}^2$

C)  $34.452 \text{ cm}^2$

D) Not enough data

**Use a protractor to measure the angle.**

5)



A)  $20^\circ$

B)  $70^\circ$

C)  $110^\circ$

D)  $40^\circ$

5) \_\_\_\_\_

**Solve the problem.**

- 6) A pest control company sprays insecticide around the perimeter of a 390 ft by 400 ft building. If the spray costs \$0.10 per foot, how much did the job cost to the nearest dollar?

A) \$1300

B) \$158

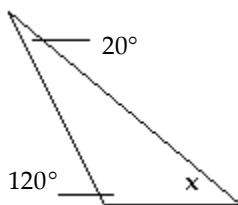
C) \$79

D) \$15,600

6) \_\_\_\_\_

**Find the missing angle measure.**

7)



7) \_\_\_\_\_

A)  $140^\circ$

B)  $40^\circ$

C)  $45^\circ$

D)  $100^\circ$

**Tell whether the angle is acute, right, obtuse, or straight.**

8)



8) \_\_\_\_\_

A) Obtuse

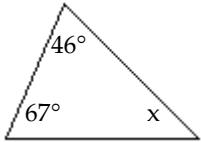
B) Straight

C) Acute

D) Right

**Find the missing angle measure.**

9)



9) \_\_\_\_\_

A)  $113^\circ$

B)  $67^\circ$

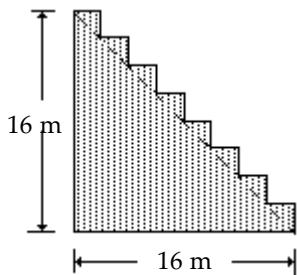
C)  $46^\circ$

D)  $23^\circ$

**Find the area of the shaded region.**

- 10) Each small triangle has a height and a base of 2 m.

10) \_\_\_\_\_

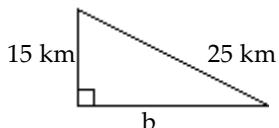


- A)  $160 \text{ m}^2$   
B)  $144 \text{ m}^2$   
C)  $288 \text{ m}^2$   
D) Not enough information given

**Find the length of the third side of the right triangle. Give an exact answer and, where appropriate, an approximation to three decimal places.**

11)

11) \_\_\_\_\_



- A)  $b = 18 \text{ km}$   
B)  $b = 24 \text{ km}$   
C)  $b = 20 \text{ km}$   
D)  $b = 25 \text{ km}$

**Find the perimeter of the polygon.**

- 12) A square with side 7.6 yd

12) \_\_\_\_\_

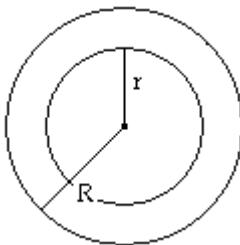
- A) 15.2 yd  
B) 30.4 yd  
C) 40.4 yd  
D) 115.52 yd

**Solve the problem. Use 3.14 for  $\pi$ .**

- 13) Find the cost to asphalt a circular racetrack if asphalt costs \$60 per  $100 \text{ ft}^2$ . (Round to the nearest dollar.)

13) \_\_\_\_\_

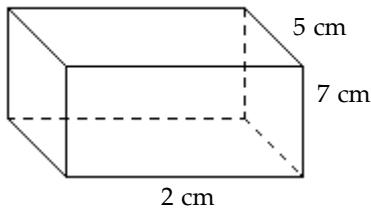
$$r = 125 \text{ ft}$$
$$R = 140 \text{ ft}$$



- A) \$29,438  
B) \$1696  
C) \$7489  
D) \$36,926

**Find the volume.**

14)



A)  $70 \text{ cm}^3$

B)  $98 \text{ cm}^3$

C)  $20 \text{ cm}^3$

D)  $175 \text{ cm}^3$

14) \_\_\_\_\_

**Solve the problem. Use 3.14 for  $\pi$ . Round to the nearest tenth.**

- 15) A toy baseball bat comes with 3 plastic balls in a box that is a rectangular solid. The box is just big enough to hold the 3 balls. The radius of the balls is 1.7 in. What is the volume of the air in the box surrounding the balls.

15) \_\_\_\_\_

A)  $18.7 \text{ in}^3$

B)  $97.3 \text{ in}^3$

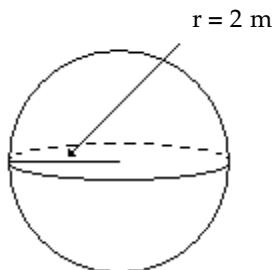
C)  $56.2 \text{ in}^3$

D)  $47.0 \text{ in}^3$

**Find the volume of the sphere. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

- 16) Use 3.14 for  $\pi$ .

16) \_\_\_\_\_



A)  $18.84 \text{ m}^3$

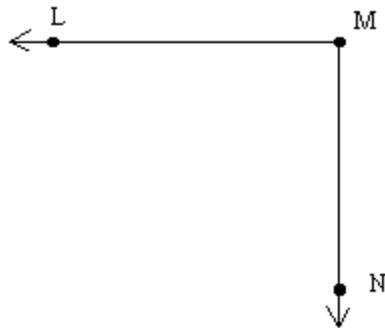
B)  $16.747 \text{ m}^3$

C)  $33.493 \text{ m}^3$

D)  $267.947 \text{ m}^3$

Name the angle in five different ways.

17)



17) \_\_\_\_\_

- A) Angle L, angle LMN, angle NML,  $\angle LMN$ , or  $\angle L$
- B)  $\angle LMN$ ,  $\angle N$ ,  $\angle NML$ , angle NML, or angle N
- C)  $\angle LNM$ ,  $\angle NLM$ ,  $\angle M$ , angle LMN, or angle M
- D)  $\angle M$ ,  $\angle LMN$ ,  $\angle NML$ , angle NML, or angle LMN

Solve the problem.

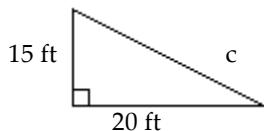
- 18) A one-story building is 210 ft by 320 ft. If a square patio with sides 27 ft occupies the center of the building, how much area remains for offices?

18) \_\_\_\_\_

- A) 1033  $\text{ft}^2$
- B) 1060  $\text{ft}^2$
- C) 952  $\text{ft}^2$
- D) 66,471  $\text{ft}^2$

Find the length of the third side of the right triangle. Give an exact answer and, where appropriate, an approximation to three decimal places.

19)

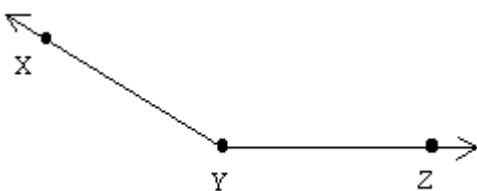


19) \_\_\_\_\_

- A)  $c = 13 \text{ ft}$
- B)  $c = 24 \text{ ft}$
- C)  $c = 25 \text{ ft}$
- D)  $c = 18 \text{ ft}$

Name the angle in five different ways.

20)



20) \_\_\_\_\_

- A) Angle ZYX, angle XYZ,  $\angle Y$ ,  $\angle ZXY$ , or angle ZYX
- B) Angle XYZ, angle ZYX, angle ZYX,  $\angle XYZ$ , or  $\angle Y$
- C) Angle ZYX,  $\angle XYZ$ ,  $\angle ZYX$ ,  $\angle XZY$ , or  $\angle Y$
- D) Angle ZYX, angle XZY,  $\angle XYZ$ ,  $\angle ZYX$ , or  $\angle Y$

**Provide an appropriate response.**

- 21) A rectangular solid and a circular cylinder have the same volume and the same height. The base of the rectangular solid is a square. Which (if any) of the following statements are true? 21) \_\_\_\_\_

- (i) The rectangular solid and the cylinder have the same base area.
- (ii) The rectangular solid has a greater base area than the cylinder.
- (iii) The side length of the square base of the rectangular solid is equal to the diameter of the cylinder.
- (iv) The side length of the square base of the rectangular solid is less than the diameter of the cylinder.

A) (i) and (iii)      B) (ii)      C) (i) and (iv)      D) (ii) and (iii)

**Find the length of the third side of the right triangle. Assume that c represents the length of the hypotenuse. Give an exact answer and, if appropriate, an approximation to three decimal places.**

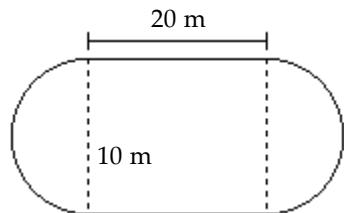
22)  $a = 30, c = 50$

22) \_\_\_\_\_

- A)  $b = 10$       B)  $b = 80$       C)  $b = 20$       D)  $b = 40$

**Find the perimeter. Use 3.14 for  $\pi$ .**

23)



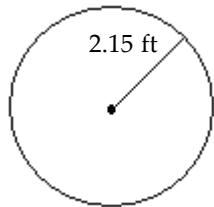
23) \_\_\_\_\_

- A) 61.4 m      B) 102.8 m      C) 71.4 m      D) 91.4 m

**Find the circumference of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

24) Use 3.14 for  $\pi$ .

24) \_\_\_\_\_



- A) 27.004 ft      B) 58.059 ft      C) 6.751 ft      D) 13.502 ft

**Solve the problem.**

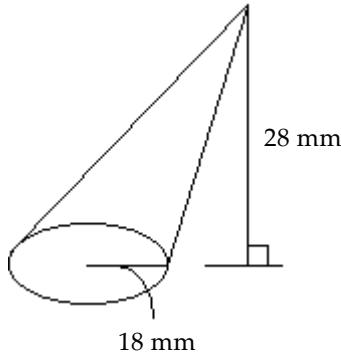
- 25) A room measures 13 ft by 18 ft. The ceiling is 9 ft above the floor. The door is 3 ft by 7 ft. A gallon of paint will cover  $75.3 \text{ ft}^2$ . How many gallons of paint are needed to paint the room (including the ceiling and not including the door). Round your answer up to the next whole number. 25) \_\_\_\_\_

- A) 8 gallons      B) 11 gallons      C) 3 gallons      D) 18 gallons

Find the volume of the circular cone. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated. Round to the nearest whole number if necessary.

- 26) Use  $\frac{22}{7}$  for  $\pi$ .

26) \_\_\_\_\_

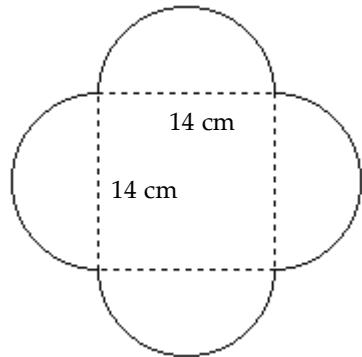


- A) 528 mm<sup>3</sup>      B) 29,870 mm<sup>3</sup>      C) 9504 mm<sup>3</sup>      D) 28,512 mm<sup>3</sup>

Find the perimeter. Use 3.14 for  $\pi$ .

- 27)

27) \_\_\_\_\_



- A) 43.96 cm      B) 143.92 cm      C) 87.92 cm      D) 115.92 cm

Find the length of the third side of the right triangle. Assume that c represents the length of the hypotenuse. Give an exact answer and, if appropriate, an approximation to three decimal places.

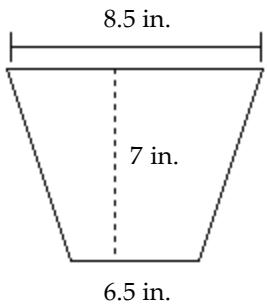
- 28)  $a = 1$ ,  $b = 7$

28) \_\_\_\_\_

- A)  $c = \sqrt{8}$ ;  $c \approx 2.828$   
B)  $c = \sqrt{48}$ ;  $c \approx 6.928$   
C)  $c = 8$   
D)  $c = \sqrt{50}$ ;  $c \approx 7.071$

**Find the area.**

29)



29) \_\_\_\_\_

A)  $52.5 \text{ in.}^2$

B)  $45.5 \text{ in.}^2$

C)  $22 \text{ in.}^2$

D)  $105 \text{ in.}^2$

**Tell whether the angle is acute, right, obtuse, or straight.**

30)



30) \_\_\_\_\_

A) Obtuse

B) Acute

C) Right

D) Straight

**Find the length of the third side of the right triangle. Assume that c represents the length of the hypotenuse. Give an exact answer and, if appropriate, an approximation to three decimal places.**

31)  $a = 8, c = 17$

31) \_\_\_\_\_

A)  $b = 9$

B)  $b = 25$

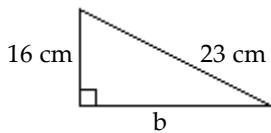
C)  $b = 15$

D)  $b = 225$

**Find the length of the third side of the right triangle. Give an exact answer and, where appropriate, an approximation to three decimal places.**

32)

32) \_\_\_\_\_



A)  $b = \sqrt{785} \text{ cm}; b \approx 28.018 \text{ cm}$

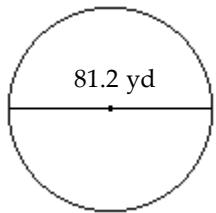
B)  $b = \sqrt{273} \text{ cm}; b \approx 16.523 \text{ cm}$

C)  $b = \sqrt{7} \text{ cm}; b \approx 2.646 \text{ cm}$

D)  $b = 273 \text{ cm}$

**Find the radius or diameter as requested.**

- 33) Find the radius.



A)  $127.484 \text{ yd}$

B)  $20.3 \text{ yd}$

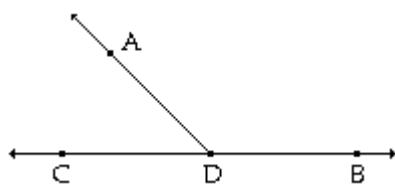
C)  $40.6 \text{ yd}$

D)  $5175.85 \text{ yd}$

- 33) \_\_\_\_\_

**Tell whether the angle is acute, right, obtuse, or straight.**

- 34)  $\angle ADB$



A) Acute

B) Obtuse

C) Right

D) Straight

- 34) \_\_\_\_\_

**Find the area.**

- 35) Find the area of a square measuring 46.2 m on a side.

- 35) \_\_\_\_\_

A)  $92.4 \text{ m}^2$

B)  $4268.88 \text{ m}^2$

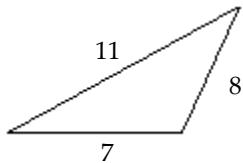
C)  $2134.44 \text{ m}^2$

D)  $184.8 \text{ m}^2$

**Classify the triangle as equilateral, isosceles, or scalene. Then classify it as right, obtuse, or acute.**

- 36)

- 36) \_\_\_\_\_



A) Scalene; acute

B) Isosceles; obtuse

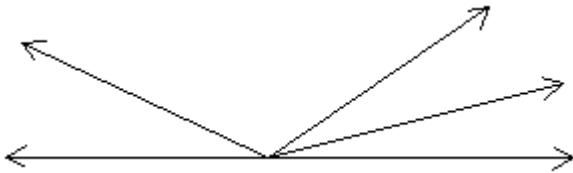
C) Scalene; obtuse

D) Isosceles; acute

**Provide an appropriate response.**

- 37) In the picture below, how many acute angles are formed in total? How many obtuse angles are formed in total?

37) \_\_\_\_\_



- A) 3 acute angles; 3 obtuse angles  
B) 4 acute angles; 5 obtuse angles  
C) 4 acute angles; 4 obtuse angles  
D) 3 acute angles; 4 obtuse angles

**Approximate to three decimal places.**

38)  $\sqrt{19}$

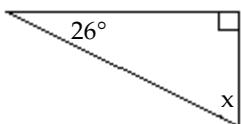
38) \_\_\_\_\_

- A) 5.359      B) 4.369      C) 4.358      D) 4.359

**Find the missing angle measure.**

39)

39) \_\_\_\_\_



- A) 154°      B) 64°      C) 116°      D) 26°

**Solve the problem.**

- 40) How much will it cost to carpet a 22 ft by 16 ft room if carpeting costs \$14.00 per square yard?

40) \_\_\_\_\_

- A) \$1642.67      B) \$4928.00      C) \$410.67      D) \$547.56

**Find the area of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

- 41) Use 3.14 for  $\pi$ .

41) \_\_\_\_\_



- A) 30.772 mi<sup>2</sup>      B) 75.3914 mi<sup>2</sup>      C) 18.84785 mi<sup>2</sup>      D) 15.386 mi<sup>2</sup>

Solve the problem. Use 3.14 for  $\pi$ . Round to the nearest tenth.

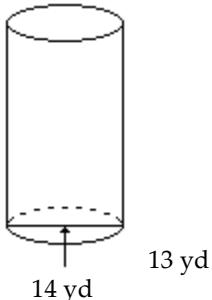
- 42) The width of a piece of paper is 8.5 in., the length is 11 in., and the thickness is 0.0035 inches. There are 2600 sheets sitting in a cabinet by the copy machine. What is the volume occupied by the paper. 42) \_\_\_\_\_
- A) 8.5 in<sup>3</sup>      B) 1365.0 in<sup>3</sup>      C) 177.5 in<sup>3</sup>      D) 850.9 in<sup>3</sup>

Find the area.

- 43) Find the area of a square measuring  $3\frac{1}{5}$  in. on a side. 43) \_\_\_\_\_
- A)  $10\frac{6}{25}$  in.<sup>2</sup>      B)  $12\frac{4}{5}$  in.<sup>2</sup>      C)  $20\frac{12}{25}$  in.<sup>2</sup>      D)  $6\frac{2}{5}$  in.<sup>2</sup>

Find the volume of the circular cylinder. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.

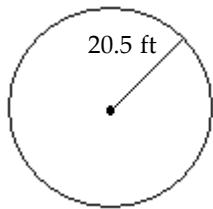
- 44) Use 3.14 for  $\pi$ . 44) \_\_\_\_\_



- A) 571.48 yd<sup>3</sup>      B) 285.74 yd<sup>3</sup>      C) 8000.72 yd<sup>3</sup>      D) 2000.18 yd<sup>3</sup>

Find the circumference of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.

- 45) Use 3.14 for  $\pi$ . 45) \_\_\_\_\_



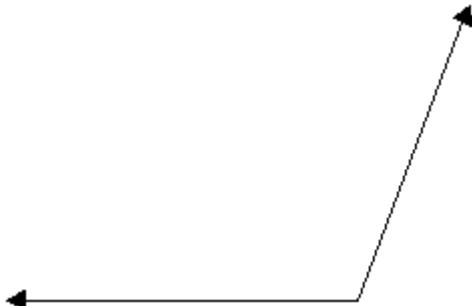
- A) 128.74 ft      B) 257.48 ft      C) 64.37 ft      D) 5278.34 ft

Tell whether the angle is acute, right, obtuse, or straight.

- 46) 46) \_\_\_\_\_
- 
- A diagram of an angle. One ray extends upwards and to the left, while the other ray extends downwards and to the right. They meet at a common vertex.
- A) Acute      B) Right      C) Straight      D) Obtuse

**Use a protractor to measure the angle.**

47)



A)  $70^\circ$

B)  $180^\circ$

C)  $110^\circ$

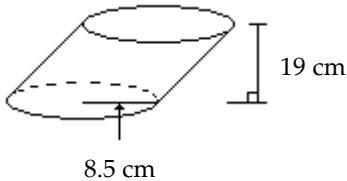
D)  $40^\circ$

47) \_\_\_\_\_

**Find the volume of the circular cylinder. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

48) Use 3.14 for  $\pi$ .

48) \_\_\_\_\_



A)  $507.11 \text{ cm}^3$

B)  $17,241.74 \text{ cm}^3$

C)  $4310.435 \text{ cm}^3$

D)  $1014.22 \text{ cm}^3$

**Find the circumference of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

49) Use 3.14 for  $\pi$ .

49) \_\_\_\_\_



A)  $11.430 \text{ mi}$

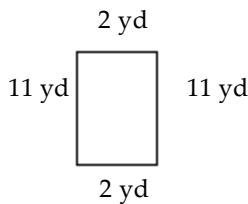
B)  $56.52 \text{ mi}$

C)  $254.340 \text{ mi}$

D)  $28.260 \text{ mi}$

**Find the perimeter of the polygon.**

50)



A)  $13 \text{ yd}$

B)  $26 \text{ yd}$

C)  $18 \text{ yd}$

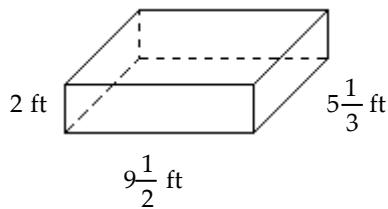
D)  $8 \text{ yd}$

50) \_\_\_\_\_

**Find the volume.**

51)

51) \_\_\_\_\_



A)  $16\frac{5}{6}\text{ ft}^3$

B)  $101\frac{1}{3}\text{ ft}^3$

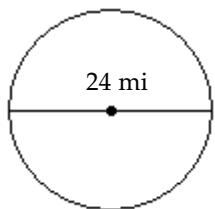
C)  $90\frac{1}{6}\text{ ft}^3$

D)  $50\frac{2}{3}\text{ ft}^3$

**Find the circumference of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

52) Use 3.14 for  $\pi$ .

52) \_\_\_\_\_



A) 37.68 mi

B) 75.36 mi

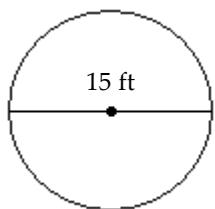
C) 150.72 mi

D) 452.16 mi

**Find the area of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

53) Use 3.14 for  $\pi$ .

53) \_\_\_\_\_



A) 706.5  $\text{ft}^2$

B) 176.625  $\text{ft}^2$

C) 94.2  $\text{ft}^2$

D) 47.1  $\text{ft}^2$

**Approximate to three decimal places.**

54)  $\sqrt{3}$

54) \_\_\_\_\_

A) 1.732

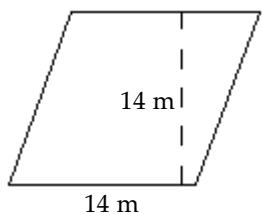
B) 1.742

C) 1.731

D) 2.732

**Find the area.**

55)



A)  $98 \text{ m}^2$

B)  $56 \text{ m}^2$

C)  $28 \text{ m}^2$

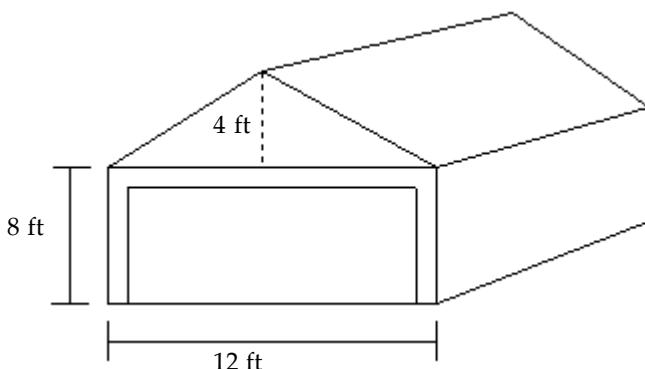
D)  $196 \text{ m}^2$

55) \_\_\_\_\_

**Solve the problem.**

56) Find the total area of the ends of the garage.

56) \_\_\_\_\_



A)  $224 \text{ ft}^2$

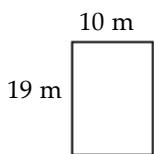
B)  $240 \text{ ft}^2$

C)  $288 \text{ ft}^2$

D)  $120 \text{ ft}^2$

**Find the area.**

57)



A)  $380 \text{ m}^2$

B)  $58 \text{ m}^2$

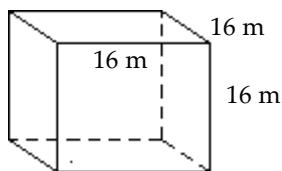
C)  $190 \text{ m}^2$

D)  $29 \text{ m}^2$

57) \_\_\_\_\_

**Find the volume.**

58)



A)  $256 \text{ m}^3$

B)  $4096 \text{ m}^3$

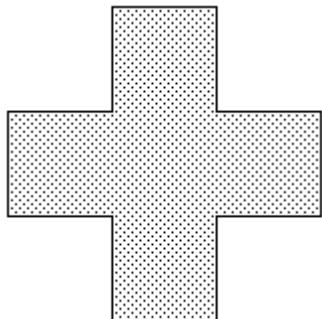
C)  $512 \text{ m}^3$

D)  $48 \text{ m}^3$

58) \_\_\_\_\_

**Find the area of the shaded region.**

59)



Each side 7 cm

59) \_\_\_\_\_

A)  $196 \text{ cm}^2$

B)  $84 \text{ cm}^2$

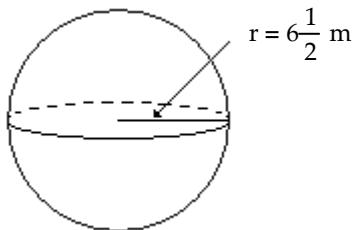
C)  $147 \text{ cm}^2$

D)  $245 \text{ cm}^2$

**Find the volume of the sphere. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

60) Use  $\frac{22}{7}$  for  $\pi$ .

60) \_\_\_\_\_



A)  $647\frac{37}{112} \text{ m}^3$

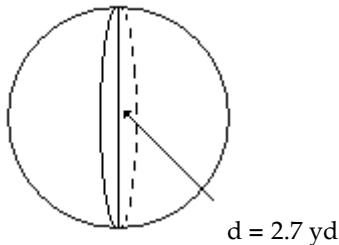
B)  $132\frac{11}{14} \text{ m}^3$

C)  $1150\frac{17}{21} \text{ m}^3$

D)  $863\frac{3}{28} \text{ m}^3$

61) Use 3.14 for  $\pi$ .

61) \_\_\_\_\_



A)  $7.63 \text{ yd}^3$

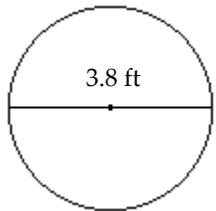
B)  $5.794 \text{ yd}^3$

C)  $82.406 \text{ yd}^3$

D)  $10.301 \text{ yd}^3$

**Find the radius or diameter as requested.**

- 62) Find the radius.

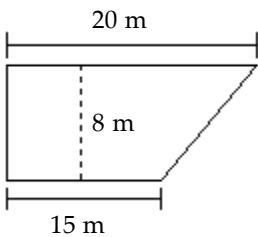


- A) 5.966 ft      B) 1.9 ft      C) 11.34 ft      D) 0.95 ft

62) \_\_\_\_\_

**Find the area.**

- 63)



- A)  $140 \text{ m}^2$       B)  $280 \text{ m}^2$       C)  $292 \text{ m}^2$       D)  $1200 \text{ m}^2$

63) \_\_\_\_\_

**Find the length of the third side of the right triangle. Assume that c represents the length of the hypotenuse. Give an exact answer and, if appropriate, an approximation to three decimal places.**

- 64)  $b = 8, c = 16$

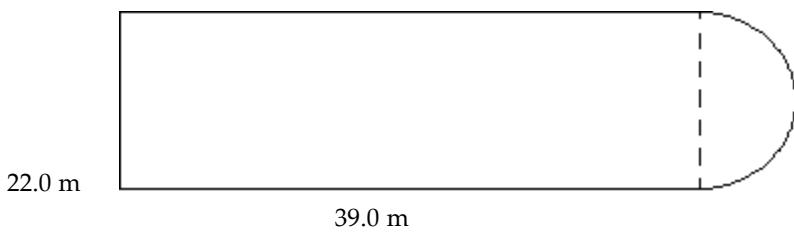
64) \_\_\_\_\_

- A)  $a = 8$   
B)  $a = \sqrt{192}; a \approx 13.856$   
C)  $a = \sqrt{24}; a \approx 4.899$   
D)  $a = \sqrt{128}; a \approx 11.314$

**Find the area of the figure. Use 3.14 for  $\pi$ .**

- 65)

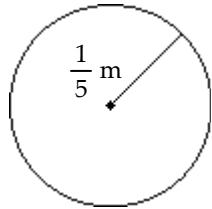
65) \_\_\_\_\_



- A)  $1237.94 \text{ m}^2$   
B)  $1047.97 \text{ m}^2$   
C)  $668.03 \text{ m}^2$   
D) Not enough data

**Find the radius or diameter as requested.**

- 66) Find the diameter.



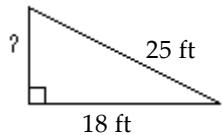
- A)  $\frac{2}{5}$  m      B)  $\frac{22}{35}$  m      C)  $\frac{1}{10}$  m      D)  $\frac{7}{110}$  m

66) \_\_\_\_\_

**Solve the problem. Give an exact answer and an approximation to the nearest tenth.**

- 67) A painter leans a ladder against one wall of a house. At what height does the ladder touch the wall?

67) \_\_\_\_\_



- A)  $\sqrt{301}$  ft  $\approx$  17.3 ft      B)  $\sqrt{7}$  ft  $\approx$  2.6 ft  
C)  $\sqrt{949}$  ft  $\approx$  30.8 ft      D)  $\sqrt{301}$  ft = 150.5 ft

**Find the length of the third side of the right triangle. Assume that c represents the length of the hypotenuse. Give an exact answer and, if appropriate, an approximation to three decimal places.**

- 68) a = 6, b = 8

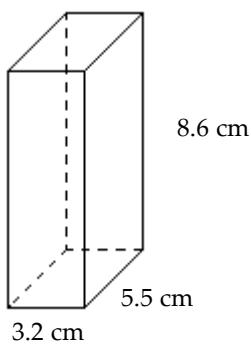
68) \_\_\_\_\_

- A) c = 100      B) c = 14      C) c = 10      D) c = 48

**Find the volume.**

- 69)

69) \_\_\_\_\_

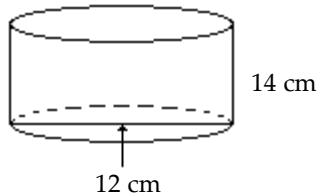


- A) 151.360  $\text{cm}^2$       B) 50.50  $\text{cm}^3$   
C) 151.360  $\text{cm}^3$       D) 17.3  $\text{cm}^3$

**Find the volume of the circular cylinder. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

70) Use 3.14 for  $\pi$ .

70) \_\_\_\_\_

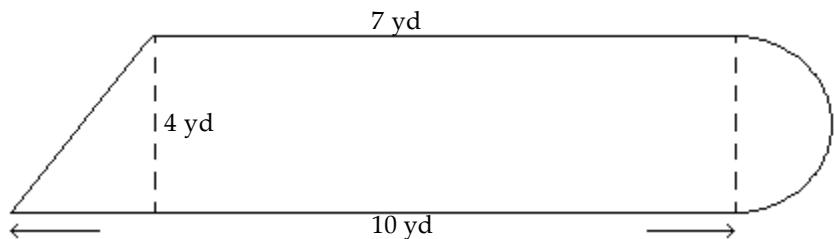


- A) 263.76  $\text{cm}^3$       B) 1582.56  $\text{cm}^3$       C) 527.52  $\text{cm}^3$       D) 6330.24  $\text{cm}^3$

**Find the area of the figure. Use 3.14 for  $\pi$ .**

71)

71) \_\_\_\_\_

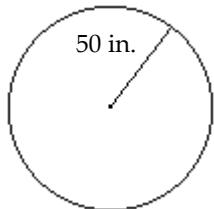


- A) 46.28  $\text{yd}^2$       B) 46.56  $\text{yd}^2$   
C) 40.28  $\text{yd}^2$       D) Not enough data

**Find the radius or diameter as requested.**

72) Find the diameter.

72) \_\_\_\_\_

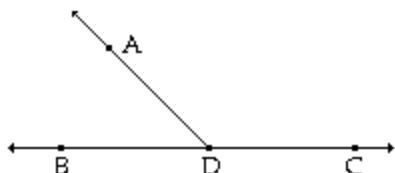


- A) 25 in.      B) 157 in.      C) 7850.00 in.      D) 100 in.

**Tell whether the angle is acute, right, obtuse, or straight.**

73)  $\angle ADB$

73) \_\_\_\_\_



- A) Obtuse      B) Right      C) Straight      D) Acute

**Solve the problem. Use 3.14 for  $\pi$ .**

- 74) The outfield wall in a baseball park is in the shape of a quarter circle. If the radius of the circle is 8 ft, how long is the wall? 74) \_\_\_\_\_

A) 12.56 ft      B) 25.12 ft      C) 10.56 ft      D) 6.28 ft

**Find the area.**

- 75) Find the area of a rectangle measuring 4.7 yd by 13.87 yd. 75) \_\_\_\_\_

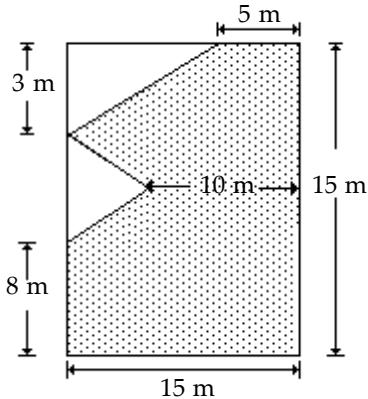
A) 130.378 yd<sup>2</sup>      B) 65.189 yd<sup>2</sup>      C) 22.09 yd<sup>2</sup>      D) 18.57 yd<sup>2</sup>

- 76) Find the area of a rectangle measuring  $5\frac{1}{3}$  mi by  $6\frac{2}{3}$  mi. 76) \_\_\_\_\_

A) 24 mi<sup>2</sup>      B)  $35\frac{5}{9}$  mi<sup>2</sup>      C)  $30\frac{2}{9}$  mi<sup>2</sup>      D) 12 mi<sup>2</sup>

**Find the area of the shaded region.**

- 77) 77) \_\_\_\_\_



A) 210 m<sup>2</sup>      B) 175 m<sup>2</sup>  
C) 200 m<sup>2</sup>      D) Not enough information given

**Solve the problem.**

- 78) A photograph measuring 6 in. by  $8\frac{1}{2}$  in. is put in a frame measuring  $6\frac{1}{2}$  in. by 9 in. What is the 78) \_\_\_\_\_

area of the border around the photo?

A)  $6\frac{1}{2}$  in.<sup>2</sup>      B) 7 in.<sup>2</sup>      C)  $7\frac{1}{2}$  in.<sup>2</sup>      D) 8 in.<sup>2</sup>

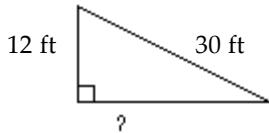
**Solve the problem. Use 3.14 for  $\pi$ .**

- 79) The striking circle in field hockey is a semicircle with a radius of 15.0 yd. Find the area of the 79) \_\_\_\_\_

A) 2826 yd<sup>2</sup>      B) 94.2 yd<sup>2</sup>      C) 353.25 yd<sup>2</sup>      D) 706.5 yd<sup>2</sup>

**Solve the problem. Give an exact answer and an approximation to the nearest tenth.**

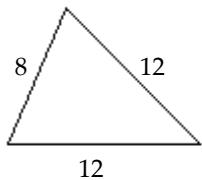
- 80) Below is a diagram of a water slide. How far is it along the ground from the end of the slide back to the base of the ladder that leads to the slide? 80) \_\_\_\_\_



- A)  $\sqrt{756}$  ft = 378 ft  
B)  $\sqrt{118}$  ft  $\approx$  4.2 ft  
C)  $\sqrt{756}$  ft  $\approx$  27.5 ft  
D)  $\sqrt{1044}$  ft  $\approx$  32.3 ft

**Classify the triangle as equilateral, isosceles, or scalene. Then classify it as right, obtuse, or acute.**

- 81) 81) \_\_\_\_\_



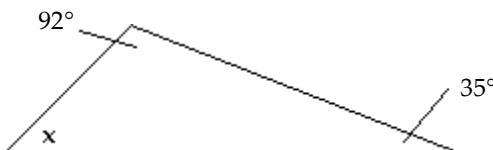
- A) Isosceles; right  
B) Isosceles; acute  
C) Equilateral; acute  
D) Equilateral; right

**Simplify.**

- 82)  $\sqrt{3600}$  82) \_\_\_\_\_  
A) 30 B) 120 C) 60 D) 3600

**Find the missing angle measure.**

- 83) 83) \_\_\_\_\_



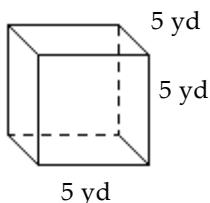
- A) 88° B) 43° C) 53° D) 127°

**Approximate to three decimal places.**

- 84)  $\sqrt{200}$  84) \_\_\_\_\_  
A) 14.142 B) 14.132 C) 14.143 D) 14.141

**Find the volume.**

85)



A)  $15 \text{ yd}^3$

B)  $125 \text{ yd}^3$

C)  $25 \text{ yd}^3$

D)  $50 \text{ yd}^3$

85) \_\_\_\_\_

**Find the perimeter of the polygon.**

86) A rectangle measuring  $3\frac{2}{3}$  mm by  $4\frac{1}{2}$  mm.

86) \_\_\_\_\_

A)  $8\frac{1}{6}$  mm

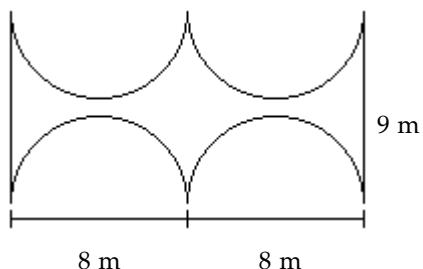
B)  $16\frac{1}{2}$  mm

C)  $16\frac{1}{3}$  mm

D) 20 mm

**Find the perimeter. Use 3.14 for  $\pi$ .**

87)



A) 68.24 m

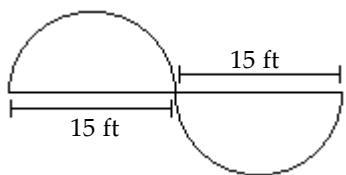
B) 34.12 m

C) 43.12 m

D) 59.24 m

87) \_\_\_\_\_

88)



A) 47.1 ft

B) 77.1 ft

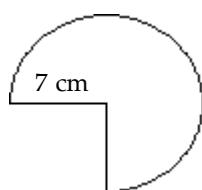
C) 94.2 ft

D) 124.2 ft

88) \_\_\_\_\_

**Find the area of the figure. Use 3.14 for  $\pi$ .**

89)



A) 205.1467  $\text{cm}^2$

C) 28.8488  $\text{cm}^2$

B) 115.395  $\text{cm}^2$

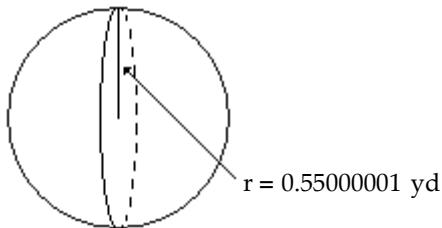
D) Not enough data

89) \_\_\_\_\_

**Find the volume of the sphere. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

90) Use 3.14 for  $\pi$ .

90) \_\_\_\_\_



A) 0.392  $\text{yd}^3$

B) 0.697  $\text{yd}^3$

C) 5.572  $\text{yd}^3$

D) 1.266  $\text{yd}^3$

**Simplify.**

91)  $\sqrt{250,000}$

91) \_\_\_\_\_

A) 125,000

B) 500

C) 2500

D) 1000

**Solve the problem. Use 3.14 for  $\pi$ .**

92) A figure skater must trace a figure eight on the ice that consists of two perfect circles, each with a radius of 8 ft. How far does the skater go one time around the figure eight?

92) \_\_\_\_\_

A) 25.12 ft

B) 23.12 ft

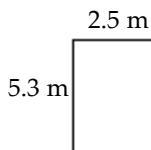
C) 50.24 ft

D) 100.48 ft

**Find the area.**

93)

93) \_\_\_\_\_



A) 7.8  $\text{m}^2$

B) 15.6  $\text{m}^2$

C) 26.50  $\text{m}^2$

D) 13.25  $\text{m}^2$

**Simplify.**

94)  $\sqrt{64}$

94) \_\_\_\_\_

A) 10

B) 32

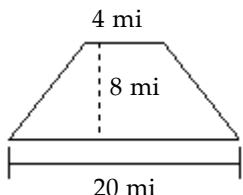
C) 16

D) 8

**Find the area.**

95)

95) \_\_\_\_\_



A) 3200  $\text{mi}^2$

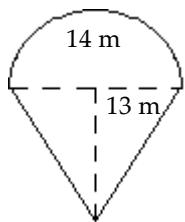
B) 40  $\text{mi}^2$

C) 96  $\text{mi}^2$

D) 32  $\text{mi}^2$

**Find the area of the figure. Use 3.14 for  $\pi$ .**

96)

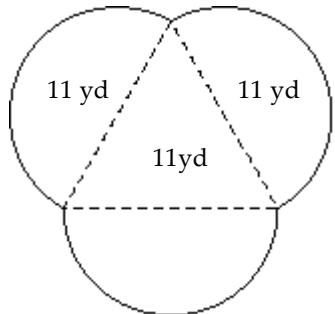


- A)  $258.93 \text{ m}^2$   
B)  $167.93 \text{ m}^2$   
C)  $244.86 \text{ m}^2$   
D) Not enough data

96) \_\_\_\_\_

**Find the perimeter. Use 3.14 for  $\pi$ .**

97)

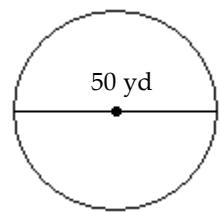


- A) 91.08 yd  
B) 51.81 yd  
C) 34.54 yd  
D) 67.54 yd

97) \_\_\_\_\_

**Find the area of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.**

98) Use 3.14 for  $\pi$ .

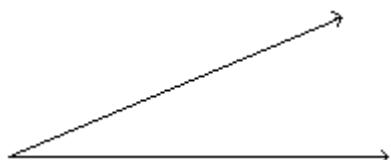


- A)  $1962.5 \text{ yd}^2$   
B)  $157 \text{ yd}^2$   
C)  $314 \text{ yd}^2$   
D)  $7850 \text{ yd}^2$

98) \_\_\_\_\_

**Tell whether the angle is acute, right, obtuse, or straight.**

99)



- A) Obtuse  
B) Right  
C) Straight  
D) Acute

99) \_\_\_\_\_

**Find the requested angle.**

100) Complement of  $37^\circ$

A)  $53^\circ$

B)  $323^\circ$

C)  $74^\circ$

D)  $143^\circ$

100) \_\_\_\_\_

**Answer Key**  
**Testname: GEOMETRY**

- |       |        |
|-------|--------|
| 1) C  | 51) B  |
| 2) A  | 52) B  |
| 3) A  | 53) B  |
| 4) A  | 54) A  |
| 5) B  | 55) D  |
| 6) B  | 56) B  |
| 7) B  | 57) C  |
| 8) D  | 58) B  |
| 9) B  | 59) D  |
| 10) B | 60) C  |
| 11) C | 61) D  |
| 12) B | 62) B  |
| 13) C | 63) A  |
| 14) A | 64) B  |
| 15) C | 65) B  |
| 16) C | 66) A  |
| 17) D | 67) A  |
| 18) D | 68) C  |
| 19) C | 69) C  |
| 20) B | 70) B  |
| 21) C | 71) C  |
| 22) D | 72) D  |
| 23) C | 73) D  |
| 24) D | 74) A  |
| 25) B | 75) B  |
| 26) C | 76) B  |
| 27) C | 77) C  |
| 28) D | 78) C  |
| 29) A | 79) C  |
| 30) C | 80) C  |
| 31) C | 81) B  |
| 32) B | 82) C  |
| 33) C | 83) C  |
| 34) B | 84) A  |
| 35) C | 85) B  |
| 36) C | 86) C  |
| 37) B | 87) A  |
| 38) D | 88) B  |
| 39) B | 89) B  |
| 40) D | 90) B  |
| 41) C | 91) B  |
| 42) D | 92) D  |
| 43) A | 93) D  |
| 44) D | 94) D  |
| 45) A | 95) C  |
| 46) D | 96) B  |
| 47) C | 97) B  |
| 48) C | 98) A  |
| 49) B | 99) D  |
| 50) B | 100) A |

Santa Monica College  
**Practicing Geometry**

- |     |      |       |
|-----|------|-------|
| 1)  | 51)  | _____ |
| 2)  | 52)  | _____ |
| 3)  | 53)  | _____ |
| 4)  | 54)  | _____ |
| 5)  | 55)  | _____ |
| 6)  | 56)  | _____ |
| 7)  | 57)  | _____ |
| 8)  | 58)  | _____ |
| 9)  | 59)  | _____ |
| 10) | 60)  | _____ |
| 11) | 61)  | _____ |
| 12) | 62)  | _____ |
| 13) | 63)  | _____ |
| 14) | 64)  | _____ |
| 15) | 65)  | _____ |
| 16) | 66)  | _____ |
| 17) | 67)  | _____ |
| 18) | 68)  | _____ |
| 19) | 69)  | _____ |
| 20) | 70)  | _____ |
| 21) | 71)  | _____ |
| 22) | 72)  | _____ |
| 23) | 73)  | _____ |
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| 50) | 100) | _____ |