Test Bank for Basic Technical Mathematics 11th Edition by Washington

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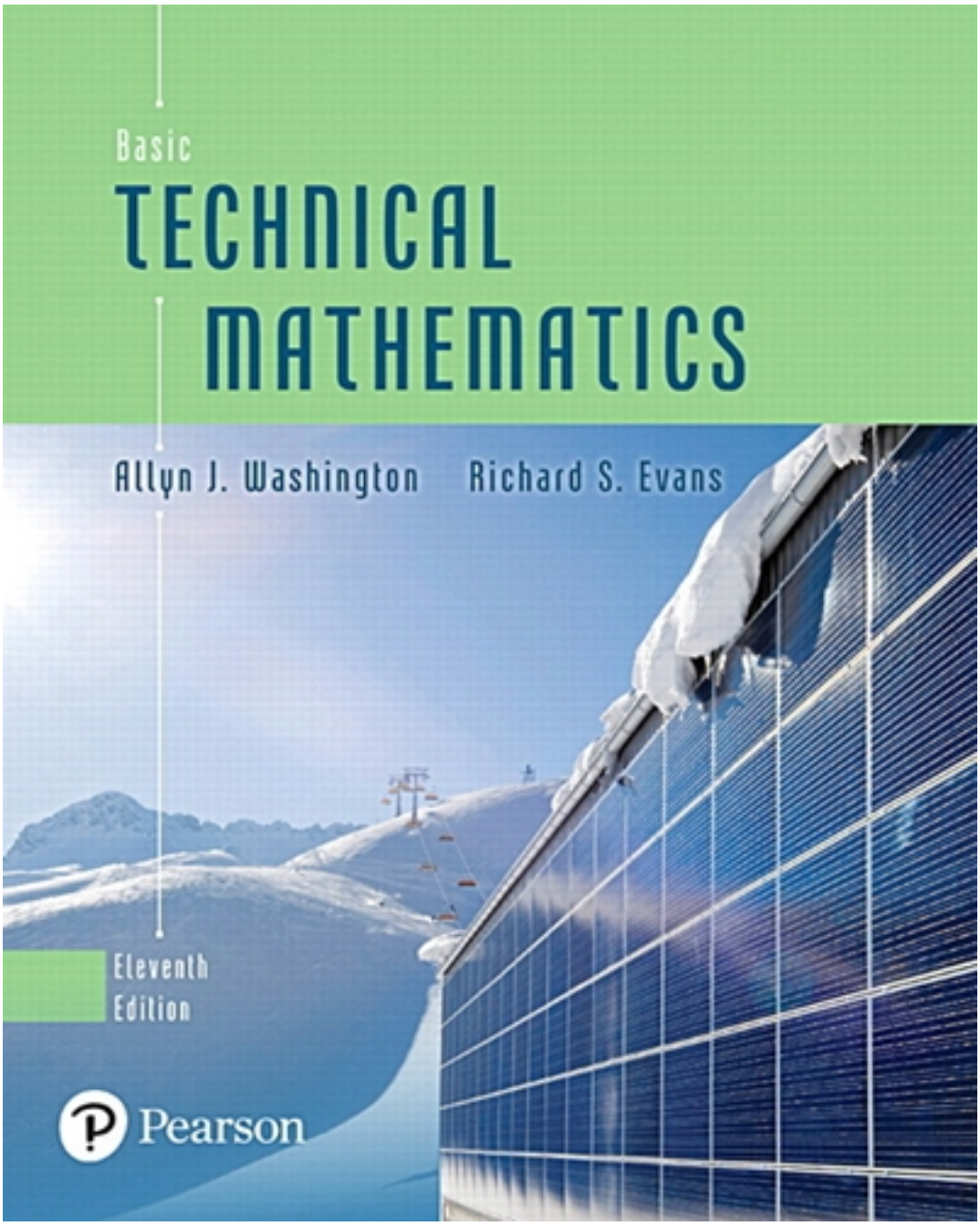
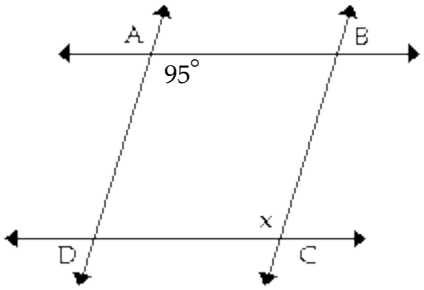


Test Bank

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

Solve the problem.

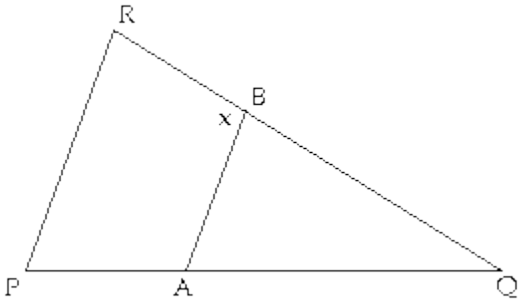
1) Given that $\overline{AB} \| \overline{DC}$ & $\overline{AD} \| \overline{BC}$, find the measure of angle x.



A) 85° B) 115° C) –105° D) 95°

Answer: D

2) If $\overline{AB} \parallel \overline{PR}$, $\angle P = 45°$, and $\angle Q = 48°$, find the measure of angle x.



A) 93° B) 45° C) 87° D) 48°

Answer: A

3) Find the supplement of 73°.

A) 17° B) 107° C) 197° D) 287°

Answer: B

4) Find the supplement of 116°.

A) 244° B) 64° C) Not possible D) 154°

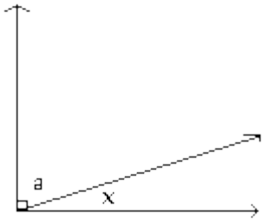
Answer: B

5) Find the complement of 17°.

A) 253° B) 73° C) 163° D) 343°

Answer: B

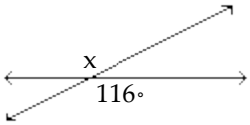
6) Find the measure of angle x.
a = 62°



A) 38° B) 28° C) 23° D) 18°

Answer: B

7) Find the measure of angle x.



A) 126° B) 26° C) 64° D) 116°

Answer: D

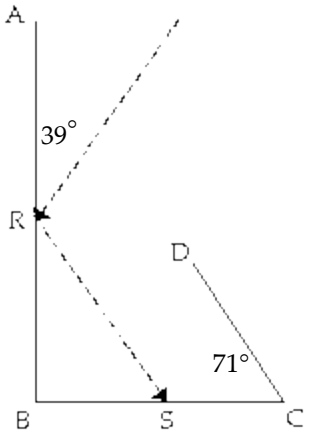
8) Give the measure of the acute angle: 32°, 90°, 111°, 180°.
A) 111° B) 32° C) 90° D) 180°

Answer: B

9) Give the measure of the obtuse angle: 75°, 90°, 105°, 180°.
A) 75° B) 90° C) 180° D) 105°

Answer: D

10)

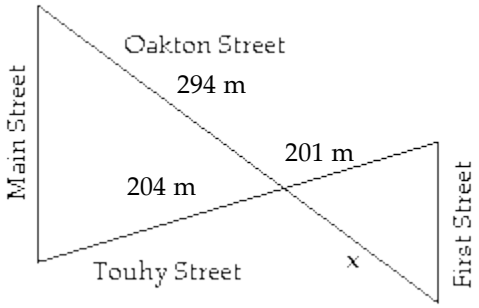


When a beam of light is reflected from a smooth surface, the angle formed by the incoming beam with the surface is equal to the angle formed by the reflected beam and the surface. The beam of light in the figure makes an angle of 39° with $\overline{RA}$. Complete the path of the light beam as it reflects from $\overline{AB}$, from $\overline{BC}$, from $\overline{DC}$, and from $\overline{AB}$ again. At what angle does the beam reflect from $\overline{AB}$ the second time?

A) 77° B) 31° C) 70° D) 97°

Answer: A

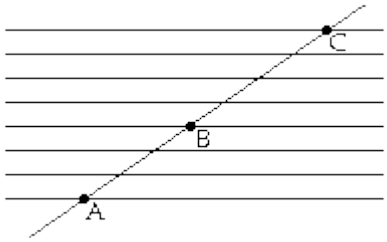
11) If Main Street is parallel to First Street, find the value of x.



A) 290 m B) 201 m C) 139 m D) 298 m

Answer: A

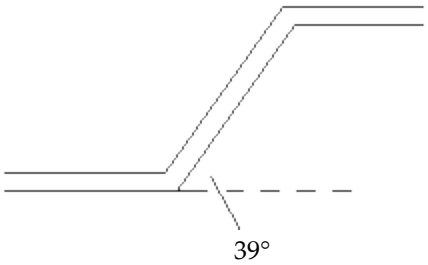
12) An electric circuit board has equally spaced parallel wires with connections at points A, B, and C, as shown in the figure. If AB = 3.30 cm, what is the length of $\overline{BC}$?



A) 1.89 cm B) 4.40 cm C) 3.30 cm D) 4.13 cm

Answer: B

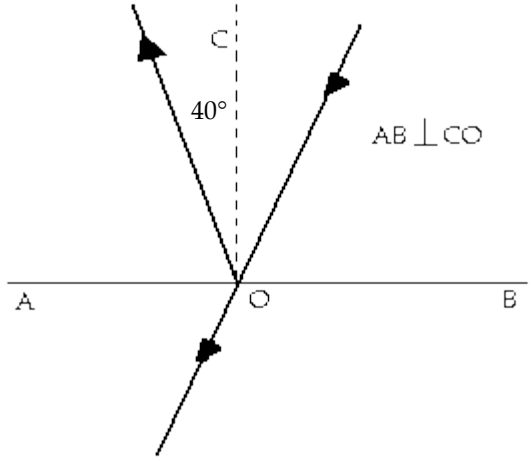
13) A part used in manufacturing is shown in the figure. If the upper and lower sections are parallel, what is the angle between the diagonal and the upper section?



A) 141° B) 129° C) 51° D) 39°

Answer: A

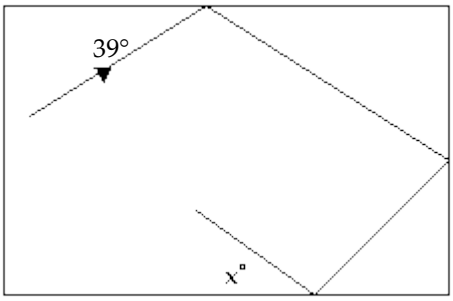
14) A beam of light is partly reflected, and the remainder of the beam passes straight through the surface. Find the angle (angle O) between the surface and the part that passes through.



A) 130° B) 85° C) 50° D) 40°

Answer: A

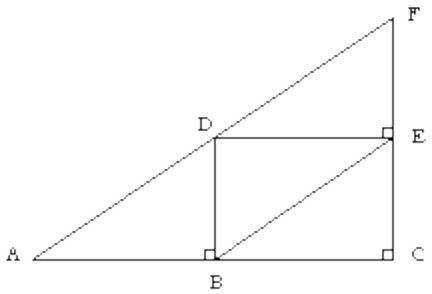
15) A pool ball is hit as shown in the diagram. Find the value of x.



A) 39° B) 34° C) 51° D) 84°

Answer: A

16) Trusses are often used in the construction of buildings. If ∠DAB = 49° what is the measure of ∠BDF in the truss shown below.



A) 139° B) 49° C) 90° D) 41°

Answer: A

17) Two angles of a triangle are 30° and 100°. Find the third angle.

A) 230° B) 40° C) 50° D) 130°

Answer: C

18) Two angles of a triangle are 48° and 109°. Find the third angle.

A) 157° B) 23° C) 203° D) 67°

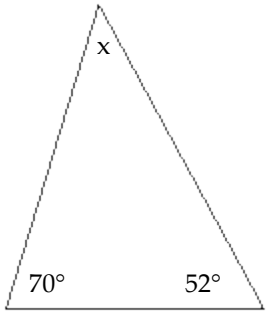
Answer: B

19) One of the base angles of an isosceles triangle is 39°. Find the measures of the other two angles.

A) 39°, 12° B) 39°, 102° C) 39°, 78° D) 39°, 282°

Answer: B

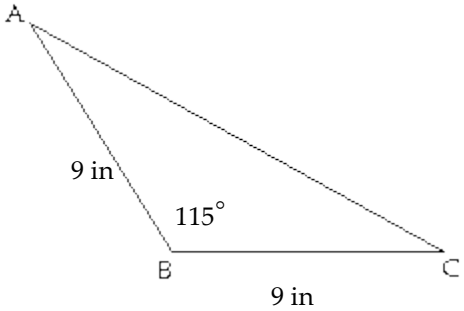
20) Find x.



A) 70° B) 58° C) 52° D) 61°

Answer: B

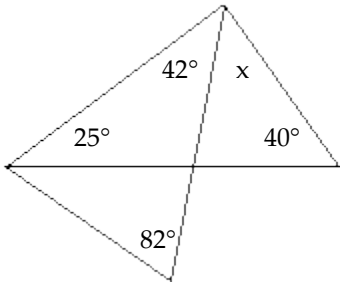
21) Find ∠A.



A) 65° B) 122.5° C) 27.5° D) 32.5°

Answer: D

22) Determine the value of x.

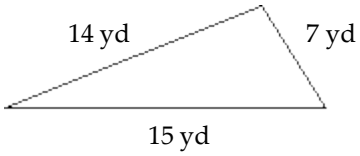


A) 73° B) 67° C) 57° D) 115°

Answer: A

Find the perimeter.

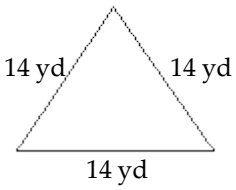
23)



A) 52.5 yd B) 36 yd C) 29 yd D) 35 yd

Answer: B

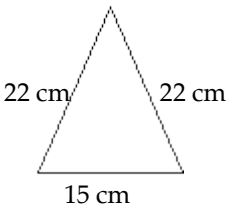
24)



A) 41 yd B) 28 yd C) 98 yd D) 42 yd

Answer: D

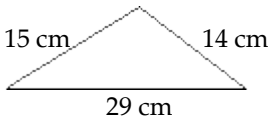
25)



A) 44 cm B) 59 cm C) 57 cm D) 165 cm

Answer: B

26)

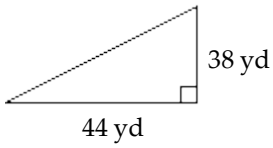


A) 58 cm B) 203 cm C) 59 cm D) 57 cm

Answer: A

Find the area.

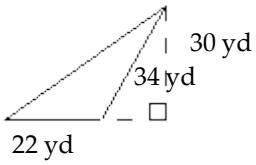
27)



A) 840 yd^2 B) 720 yd^2 C) 420 yd^2 D) 1700 yd^2

Answer: A

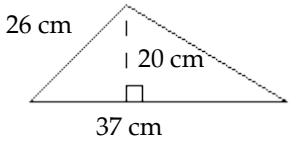
28)



A) 450 yd^2 B) 660 yd^2 C) 330 yd^2 D) 510 yd^2

Answer: C

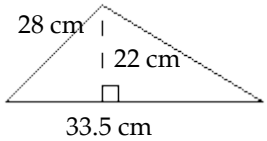
29)



A) 260 cm^2 B) 740 cm^2 C) 370 cm^2 D) 200 cm^2

Answer: C

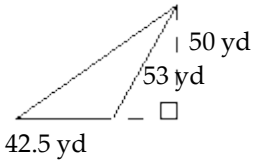
30)



A) 310 cm^2 B) 370 cm^2 C) 240 cm^2 D) 740 cm^2

Answer: B

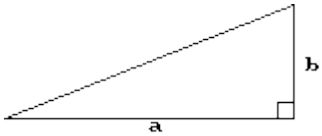
31)



A) 2100 yd^2 B) 1330 yd^2 C) 1300 yd^2 D) 1100 yd^2

Answer: D

32)

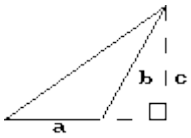


a = 46 yd. b = 42 yd

A) 1900 yd^2 B) 880 yd^2 C) 490 yd^2 D) 970 yd^2

Answer: D

33)

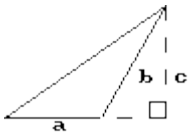


a = 23 cm, b = 44 cm, c = 39 cm

A) 900 cm^2 B) 760 cm^2 C) 858 cm^2 D) 450 cm^2

Answer: D

34)



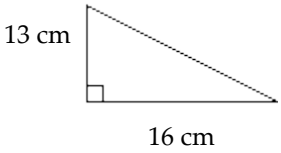
a = 20.5 yd, b = 38 yd, c = 35 yd

A) 670 yd^2 B) 610 yd^2 C) 720 yd^2 D) 360 yd^2

Answer: D

Find the missing length in the right triangle.

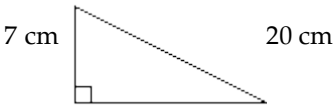
35)



A) 21 cm B) 15 cm C) 430 cm D) 220 cm

Answer: A

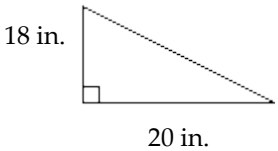
36)



A) 19 cm B) 180 cm C) 14 cm D) 350 cm

Answer: A

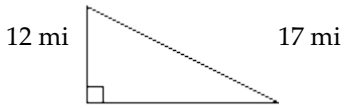
37)



A) 360 in. B) 720 in. C) 19 in. D) 27 in.

Answer: D

38)



A) 75 mi B) 15 mi C) 150 mi D) 12 mi

Answer: D

39) The legs of a right triangle are 87.8 cm and 12.0 cm. Find the length of the hypotenuse.

A) 88.6 cm B) 87.0 cm C) 89 cm D) 87 cm

Answer: A

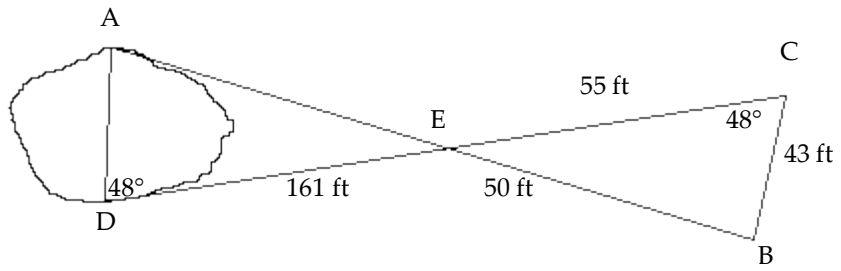
40) The hypotenuse of a right triangle is 84.8 in. and one leg is 77.0 in. Find the length of the other leg.

A) 115 in. B) 35.5 in. C) 36 in. D) 110 in.

Answer: B

Solve the problem. Round your result to an appropriate number of significant digits.

41) In order to measure the distance across a pond (from A to B), Raul made the measurements shown in the drawing. What is the distance?



A) 210 ft B) 190 ft C) 130 ft D) 140 ft

Answer: C

42) A church steeple casts a shadow 107 ft long, and at the same time a 7.00–ft post cast a shadow 5.00 ft long. How high is the steeple?

A) 100 ft B) 76 ft C) 113 ft D) 150 ft

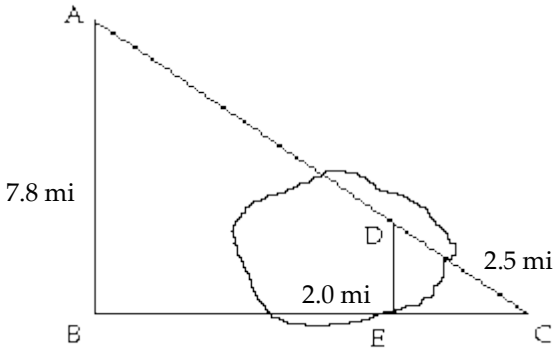
Answer: D

43) A line from the top of a cliff to the ground passes just over the top of a pole 5.0 ft high and meets the ground at a point 6.0 ft from the base of the pole. If the point is 78 ft from the base of the cliff, how high is the cliff?

A) 0.40 ft B) 0.00 ft C) 70 ft D) 65 ft

Answer: D

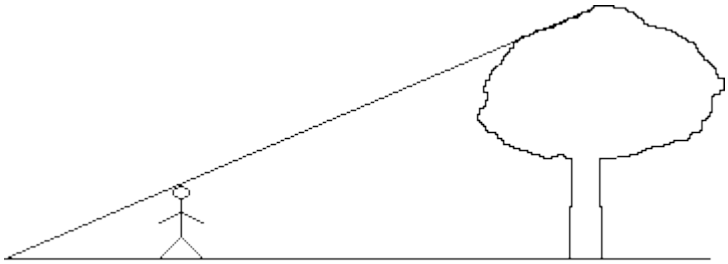
44) A lake lies between A and C, and lines AB and DE run north–south. If $\overline{AB}$ = 7.8 mi, $\overline{DE}$ = 2.0 mi, and $\overline{DC}$ = 2.5 mi, how far is it from A to C?



A) 7.3 mi B) 6.2 mi C) 10 mi D) 9.8 mi

Answer: D

45) Raul, who is 1.98 m tall, wishes to find the height of a tree. He walks 18.87 m from the base of the tree along the shadow of the tree until his head is in a position where the tip of his shadow exactly overlaps the end of the tree top's shadow. He is now 5.77 m from the end of the shadows. How tall is the tree? Round to the nearest hundredth.



A) 0.605 m B) 8.46 m C) 6.48 m D) 2.85 m

Answer: B

46) On a cloudy day, Sun Woo needed to know the height of a window in a building. Sun Woo positioned a mirror on the ground between himself and the building so that when he looked in the mirror, he saw the window. If the mirror was 19.43 cm from his feet and 34.69 m from the base of the building and Sun Woo's eye was 1.83 m above the ground, how high up on the building was the window located? Round to the nearest unit.

A) 102 m B) 3.27 m C) 1.02 m D) 327 m

Answer: D

47) Joe has a pennant for the University of Michigan. It is in the shape of an isosceles triangle. If each equal side is 76.9 cm and the third side is 25.1 cm, what is the area of the pennant?

A) 179 cm^2 B) 912 cm^2 C) 952 cm^2 D) 965 cm^2

Answer: C

48) A rectangular classroom is 10.0 ft wide, 19.0 ft long, and 8.0 feet high. What is the length of the longest diagonal from one corner to another corner of the room?

A) 23 ft B) 21 ft C) 37 ft D) 29 ft

Answer: A

Solve the problem.

49) Find the perimeter of a square with a side of 1.81 cm.
A) 7.24 cm B) 3.28 cm C) 3.62 cm D) 7.2 cm
Answer: A

50) Find the perimeter of a rhombus with a side of 1.08 mm.
A) 1.17 mm B) 4.32 mm C) 4.3 mm D) 2.16 mm
Answer: B

51) Find the perimeter of a square with a side of 15.4 in.
A) 61.6 in. B) 62 in. C) 237.2 in. D) 61.60 in.
Answer: A

52) Find the perimeter of a rhombus with a side of 17.8 ft.
A) 71.2 ft B) 75 ft C) 316.8 ft D) 35.6 ft
Answer: A

53) Find the perimeter of a rectangle with length of 83.72 cm and width of 91.20 cm.
A) 349.84 cm B) 7635 cm C) 349.8 cm D) 7635.3 cm
Answer: A

54) Find the perimeter of a rectangle with length of 152.88 in. and width of 121.96 in.
A) 549.7 in. B) 549.68 in. C) 18,645 in. D) 18,645.2 in.
Answer: B

55) Find the perimeter of an isosceles trapezoid with short base of 34.2 cm, long base of 43.4 cm, and height of 33.8 cm.
A) 145.8 cm B) 179.6 cm C) 145.5 cm D) 145.2 cm
Answer: A

56) Find the perimeter of a parallelogram with bases of 62.0 in. and 40.3 in. and height of 25.5 in.
A) 189.8 in. B) 175 in. C) 204.6 in. D) 230.1 in.
Answer: C

57) Find the area of a square with side of 7.2 cm.
A) 28.8 cm^2 B) 26 cm^2 C) 52 cm^2 D) 51.8 cm^2
Answer: C

58) Find the area of a square with side of 16.9 in.
A) 67.6 $in.^2$ B) 285.6 $in.^2$ C) 286 $in.^2$ D) 143 $in.^2$
Answer: C

59) Find the area of a rectangle with length 6.3 mm and width 7.3 mm.
A) 46.0 mm^2 B) 27.2 mm^2 C) 27 mm^2 D) 46 mm^2
Answer: D

60) Find the area of a rectangle with length 14.4 in. and width 30.0 in.
A) 432 $in.^2$ B) 89 $in.^2$ C) 432.0 $in.^2$ D) 88.8 $in.^2$
Answer: A

61) Find the area of a parallelogram with a base of 97 ft and a height of 18 ft.

A) 9400 ft^2 B) 320 ft^2 C) 1700 ft^2 D) 1746 ft^2

Answer: C

62) Find the area of a parallelogram with a base of 58 ft and a height of 29 ft.

A) 1700 ft^2 B) 840 ft^2 C) 3400 ft^2 D) 1682 ft^2

Answer: A

63) Find the area of a parallelogram with a base of 99 m and a height of 36 m.

A) 3564 m^2 B) 3600 m^2 C) 9800 m^2 D) 1300 m^2

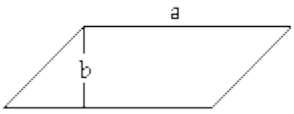
Answer: B

64) Find the area of a trapezoid with short base of 37 yd, long base of 53 yd, and height of 55 yd.

A) 980 yd^2 B) 1500 yd^2 C) 2500 yd^2 D) 5000 yd^2

Answer: C

65) Find the area.



a = 76 m b = 96 m

A) 7300 m^2 B) 9200 m^2 C) 627,800 m^2 D) 5800 m^2

Answer: A

66) The perimeter of a rectangular room is 72 ft. The width is 17 ft. Find the length.

A) 55 ft B) 20 ft C) 18 ft D) 19 ft

Answer: D

67) A small farm field is a square measuring 250 ft on a side. What is the perimeter of the field? If you double the length of each side of the field, what is the new perimeter?

A) 1000 ft, 2000 ft B) 500 ft, 2000 ft C) 500 ft, 1000 ft D) 250 ft, 1000 ft

Answer: A

68) A one–story building is 222 ft by 232 ft. If a square patio with sides 22 ft occupies the center of the building, how much area remains for offices?

A) 820 ft^2 B) 890 ft^2 C) 51,000 ft^2 D) 910 ft^2

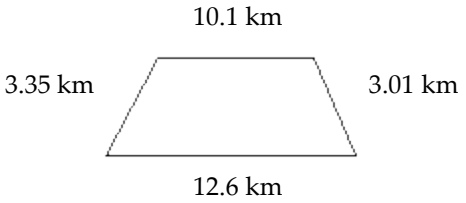
Answer: C

69) A field is in the shape of a parallelogram with sides of length 186.6 ft and 11.77 ft. The altitude to the longer side is 11.29 ft. Find the length of fencing which must be purchased to enclose the entire field.

A) 396.7 ft B) 2107 ft C) 396.74 ft D) 395.8 ft

Answer: A

70) A bike trail is in the shape of a trapezoid. Find the distance around the trail.



A) 37.93 km B) 29.06 km C) 29.1 km D) 10.1 km

Answer: C

71) A newly built house has a room in it such that the length is 3.9 ft more than the width. The perimeter is 41.4 ft. What are the dimensions?

A) 20.7 ft by 24.6 ft B) 9.4 ft by 13.3 ft C) 8.4 ft by 12.3 ft D) 19 ft by 23 ft

Answer: C

72) A home has a living room that is 15 ft wide and 21 ft long. The height is 9 ft. Bob needs to paint the room. He has to paint the walls and the ceiling. (He will not paint the floor.) There are two 3.0 ft by 5.0 ft windows and a 4.0 ft by 7.0 ft opening into the room that will not be painted. A gallon of paint covers 320 ft^2. How many gallons of paint are needed? (All data are accurate to two significant figures.)

A) 3.0 gallons B) 2.8 gallons C) 1.8 gallons D) 3.8 gallons

Answer: B

Find the circumference of the circle with the given radius or diameter.

73) r = 2.29 cm

A) 16.5 cm B) 7.19 cm C) 14.39 cm D) 14.4 cm

Answer: D

74) r = 0.478 in.

A) 3.00 in. B) 0.718 in. C) 3.003 in. D) 1.50 in.

Answer: A

75) r = 7.3 in.

A) 167.4 in. B) 45.87 in. C) 46 in. D) 22.9 in.

Answer: C

76) r = 92.9 cm

A) 292 cm B) 584 cm C) 27,110 cm D) 583.7 cm

Answer: B

77) d = 7.94 cm

A) 24.94 cm B) 24.9 cm C) 49.89 cm D) 49.9 cm

Answer: B

78) d = 5.6 in.

A) 35 in. B) 35.2 in. C) 17.6 in. D) 18 in.

Answer: D

79) d = 67.5 mm

A) 424 mm B) 212 mm C) 424.1 mm D) 212.1 mm

Answer: B

80) d = 19.5 ft

A) 122.5 ft B) 61.26 ft C) 123 ft D) 61.3 ft

Answer: D

Find the area of the circle.

81) A circle with diameter 15 cm

A) 94 cm^2 B) 710 cm^2 C) 180 cm^2 D) 47 cm^2

Answer: C

82) A circle with diameter 17.4 yd

A) 238 yd^2 B) 951 yd^2 C) 54.7 yd^2 D) 109 yd^2

Answer: A

83) A circle with radius 3.3 ft

A) 21 ft^2 B) 140 ft^2 C) 34 ft^2 D) 41 ft^2

Answer: C

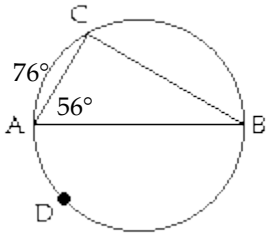
84) A circle with radius 3.76 cm

A) 44.4 cm^2 B) 178 cm^2 C) 23.6 cm^2 D) 47.2 cm^2

Answer: A

Determine the indicated arc or angle.

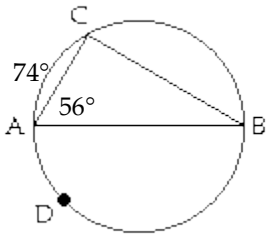
85) Find $\overset{\frown}{BC}$.



A) 104° B) 28° C) 56° D) 112°

Answer: D

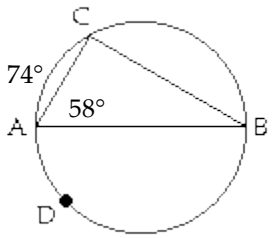
86) Find $\overset{\frown}{ADB}$.



A) 180° B) 258° C) 230° D) 174°

Answer: D

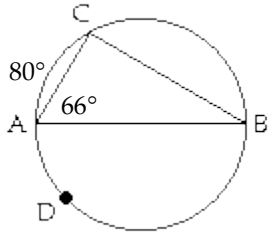
87) Find ∠ABC.



A) 58° B) 74° C) 32° D) 37°

Answer: D

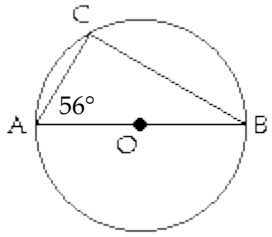
88) Find ∠ACB.



A) 34° B) 90° C) 74° D) 67°

Answer: C

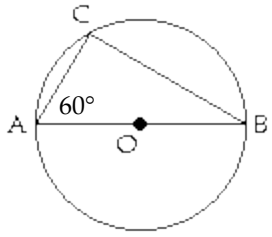
89) Find $\overset{\frown}{AC}$.



A) 68° B) 124°
C) Not enough information. D) 112°

Answer: A

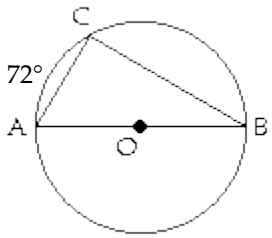
90) Find ∠ACB.



A) 120° B) 90°
C) 60° D) Not enough information.

Answer: B

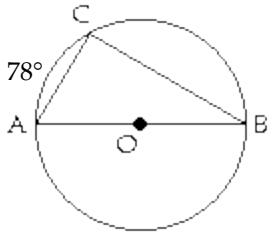
91) Find $\angle CAB$.



A) 36°
B) Not enough information.
C) 18°
D) 54°

Answer: D

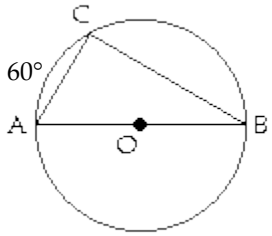
92) Find $\overset{\frown}{BC}$.



A) 102°
B) 129°
C) Not enough information.
D) 78°

Answer: A

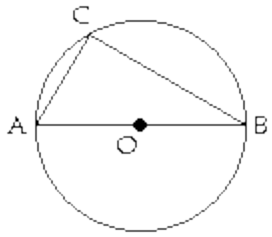
93) Find $\overset{\frown}{ACB}$.



A) 240°
B) 180°
C) 150°
D) Not enough information.

Answer: B

94) Find $\angle ACB$.



A) Not enough information.
B) 90°

Answer: B

Convert to radian measure. Round to two decimal places.

95) 133°

A) 2.31 B) 2.33 C) 2.32 D) 2.30

Answer: C

96) −284.1°

A) −4.67 B) −4.95 C) −4.68 D) −4.96

Answer: D

97) 107.4°

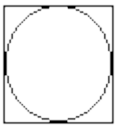
A) 1.88 B) 1.81 C) 1.82 D) 1.87

Answer: D

Solve the problem.

98) A small circular pool is enclosed in a square. Find the area inside the square but outside the circle.

3.9 m

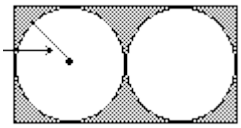


A) 18 m^2 B) 48 m^2 C) 3.3 m^2 D) 12 m^2

Answer: C

99) Find the shaded area in the figure.

6.78 cm

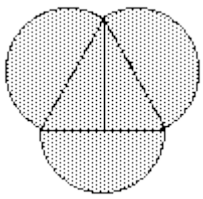


A) 39.5 cm^2 B) 223 cm^2

C) 78.9 cm^2 D) Not enough information.

Answer: C

100) Semicircles are placed on the sides of an equilateral triangle with sides 8.6 ft as shown. Find the shaded area.



A) 206 ft^2 B) 106 ft^2 C) 119 ft^2 D) 61.1 ft^2

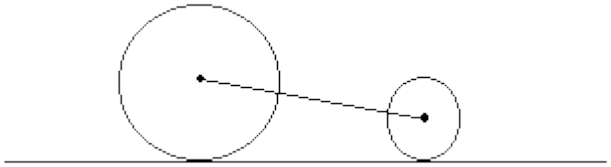
Answer: C

101) A bicycle tire has a radius of 11.4 in. How far will it travel in 155 revolutions?

A) 5550 in. B) 63,300 in. C) 127,000 in. D) 11,100 in.

Answer: D

102) Two wheels of radius 12.94 cm and 14.03 cm respectively rest on the ground. If the centers of the wheels are 36.96 cm apart, how far apart are the points where they touch the ground?



A) 36.94 cm B) 36.96 cm C) 34.19 cm D) 34.62 cm

Answer: A

103) The circumference of a tree is found to be 135 in. What is its radius?

A) 21.5 in. B) 43.0 in. C) 19.6 in. D) 18.7 in.

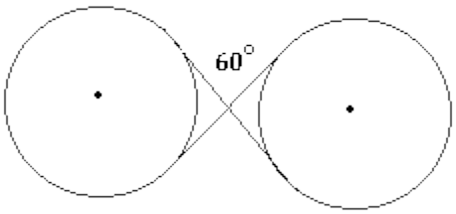
Answer: A

104) What is the area of the largest circle that can be cut from a rectangular plate that is 27.2 cm by 23.2 cm?

A) 1690 cm^2 B) 423 cm^2 C) 581 cm^2 D) 1980 cm^2

Answer: B

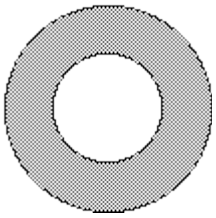
105) Find the length of the pulley belt shown in the figure if the belt crosses at 60° angles. The radius of each circle is 9.39 in.



A) 104 in. B) 81.8 in.
C) 144 in. D) Not enough information.

Answer: C

106) A washer has an inner radius of 0.15 in. and an outer radius of 0.4 in. Find the area of the washer.



A) 0.031 $in.^2$ B) 0.50 $in.^2$ C) 0.57 $in.^2$ D) 0.43 $in.^2$

Answer: D

Use the trapezoidal rule to find the area.

107) On an aerial photograph a region the widths of an area were measured at 0.60–mi intervals as shown in the following table. Find the area.

Distance (mi)	0.00	0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80
Width (mi)	2.3	2.4	2.0	1.9	1.4	2.8	2.1	2.1	4.6

A) 9.5 mi^2 B) 11 mi^2 C) 16 mi^2 D) 13 mi^2

Answer: B

108) The widths of a small pond were measured at 1.5–m intervals as shown in the following table. Find the area.

Distance (m)	0.0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0
Width (m)	0.0	7.6	8.3	5.3	8.9	6.7	5.0	5.8	0.0

A) 140 m^2 B) 73 m^2 C) 70 m^2 D) 71 m^2

Answer: D

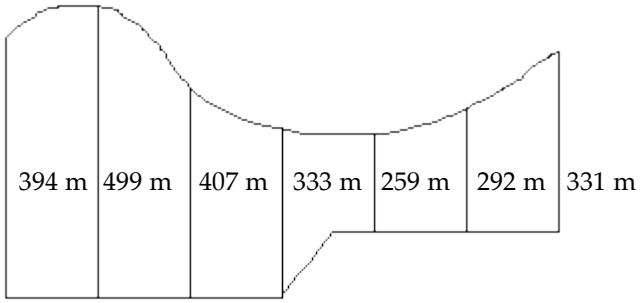
109) A meadow was measured at 5.20–yd intervals as shown in the following table. Find the area.

Distance (yd)	0.00	5.20	10.40	15.60	20.80	26.00	31.20	36.40	41.60
Width (yd)	16.4	13.1	13.9	12.8	15.6	13.3	13.0	11.9	14.2

A) 555 yd^2 B) 646 yd^2 C) 566 yd^2 D) 525 yd^2

Answer: C

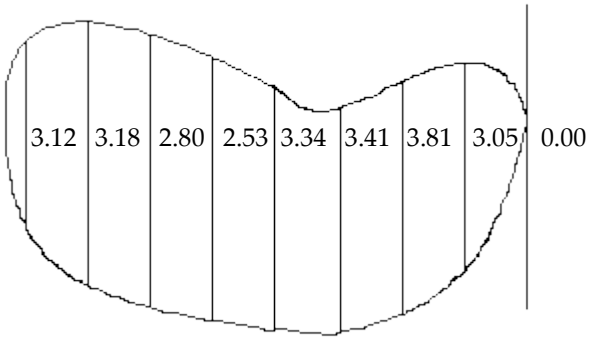
110) A parking lot was measured every 100 m (three significant digits). The measurements (in meters) are given in the diagram. Find the area.



A) 215,000 m^2 B) 252,000 m^2 C) 564,000 m^2 D) 655,000 m^2

Answer: A

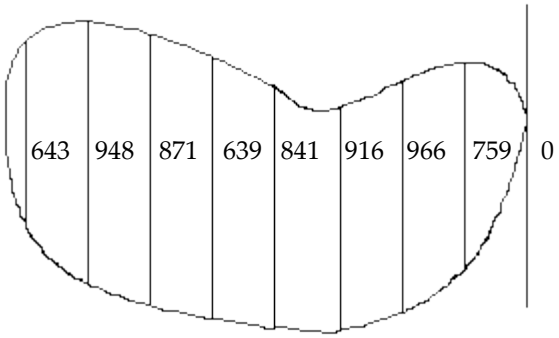
111) A pool was measured every 1.50 yd. The distances across the pool (in yards) are given in the diagram. Find the area.



A) 50.4 yd^2 B) 53.8 yd^2 C) 35.5 yd^2 D) 33.2 yd^2

Answer: C

112) A pond was measured every 290 m. The distances across the pond (in meters) are given in the diagram. Find the area.



A) 1,700,000 m^2 B) 1,800,000 m^2 C) 2,800,000 m^2 D) 2,600,000 m^2

Answer: B

Use Simpson's Rule to find the area.

113) On an aerial photograph a region the widths of an area were measured at 0.40–mi intervals as shown in the following table. Find the area.

Distance (mi)	0.00	0.40	0.80	1.20	1.60	2.00	2.40	2.80	3.20
Width (mi)	2.6	1.1	1.1	4.5	2.9	3.7	2.7	3.1	1.3

A) 12 mi^2 B) 9.2 mi^2 C) 8.9 mi^2 D) 10 mi^2

Answer: C

114) The widths of a small pond were measured at 1.5–m intervals as shown in the following table. Find the area.

Distance (m)	0.0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0
Width (m)	0.0	3.3	4.4	4.8	3.9	2.7	3.6	4.1	0.0

A) 49 m^2 B) 45 m^2 C) 42 m^2 D) 80 m^2

Answer: C

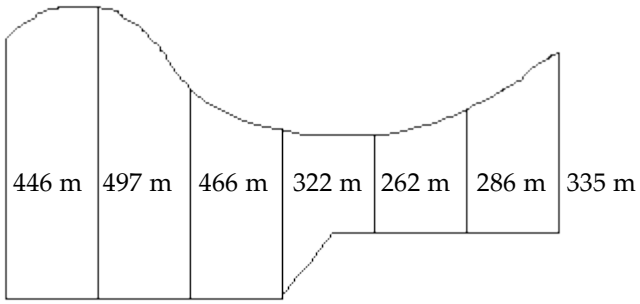
115) A meadow was measured at 5.40–yd intervals as shown in the following table. Find the area.

Distance (yd)	0.00	5.40	10.80	16.20	21.60	27.00	32.40	37.80	43.20
Width (yd)	14.6	15.0	14.6	14.0	14.6	12.3	14.6	12.8	11.7

A) 595 yd^2 B) 600 yd^2 C) 671 yd^2 D) 557 yd^2

Answer: A

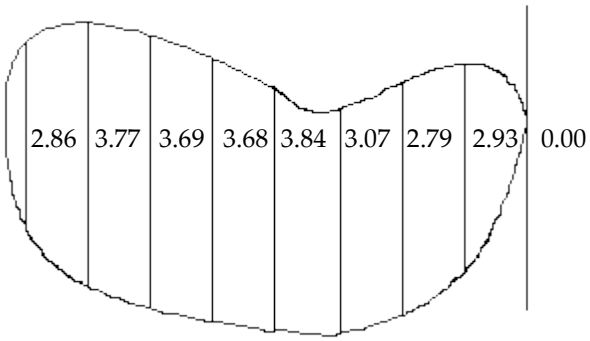
116) A parking lot was measured every 100 m (three significant digits). The measurements (in meters) are given in the diagram. Find the area.



A) 261,000 m^2 B) 197,000 m^2 C) 333,000 m^2 D) 222,000 m^2

Answer: D

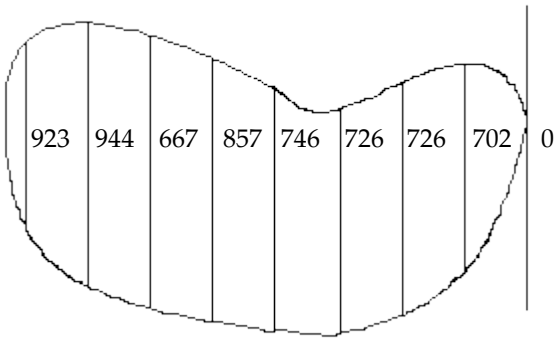
117) A pool was measured every 2.00 yd. The distances across the pool (in yards) are given in the diagram. Find the area.



A) 47.5 yd^2 B) 47.4 yd^2 C) 50.4 yd^2 D) 51.5 yd^2

Answer: D

118) A pond was measured every 290 m. The distances across the pond (in meters) are given in the diagram. Find the area.



A) 1,800,000 m^2 B) 1,600,000 m^2 C) 1,700,000 m^2 D) 1,500,000 m^2

Answer: A

Find the volume.

119) A cube measuring 22 m on each edge

A) 960 m^3 B) 480 m^3 C) 11,000 m^3 D) 66 m^3

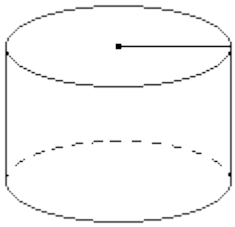
Answer: C

120) A box 8.6 yd x 7.5 yd x 7.0 yd

A) 450 yd^3 B) 520 yd^3 C) 370 yd^3 D) 480 yd^3

Answer: A

121)



Radius = 5.0 ft, height = 14 ft

A) 4400 ft^3 B) 220 ft^3 C) 440 ft^3 D) 1100 ft^3

Answer: D

122) A sphere with diameter 6.7 cm

A) 1300 cm^3 B) 47 cm^3 C) 160 cm^3 D) 89 cm^3

Answer: C

123) A cone with height 3 in. and radius 5 in.

A) 200 $in.^3$ B) 80 $in.^3$ C) 100 $in.^3$ D) 30 $in.^3$

Answer: B

124) A cone with height 6 in. and radius 9 in.

A) 1000 $in.^3$ B) 500 $in.^3$ C) 100 $in.^3$ D) 800 $in.^3$

Answer: B

125) A cone with height 3.7 cm and diameter 6.7 cm

A) 43 cm^3 B) 260 cm^3 C) 52 cm^3 D) 170 cm^3

Answer: A

126) A triangular pyramid with base area 24.2 ft^2 and height 5.0 ft

A) 40 ft^3 B) 61 ft^3 C) 38 ft^3 D) 120 ft^3

Answer: A

127) A rectangular pyramid with base area 23.5 m^2 and height 6.0 m

A) 47 m^3 B) 140 m^3 C) 45 m^3 D) 71 m^3

Answer: A

Solve the problem.

128) Find the total surface area of a box 14.6 cm by 15.2 cm by 17 cm.

A) 1460 cm^2 B) 730 cm^2 C) 1400 cm^2 D) 1200 cm^2

Answer: A

129) Find the total surface area of a cube with an edge of 14 ft.

A) 340 ft^2 B) 1200 ft^2 C) 84 ft^2 D) 600 ft^2

Answer: B

130) Find the total surface area of a right circular cylinder with r = 7.3 in., h = 8.1 in.

A) 350 $in.^2$ B) 700 $in.^2$ C) 1400 $in.^2$ D) 520 $in.^2$

Answer: B

131) Find the total surface area of a right circular cylinder with d = 11.4 m, h = 8.5 m.

A) 254.2 m^2 B) 870 m^2 C) 360 m^2 D) 170 m^2

Answer: D

132) Find the total surface area of a right circular cone with diameter 18.9 ft and height 14.1 ft.

A) 1120 ft^2 B) 3920 ft^2 C) 2800 ft^2 D) 784 ft^2

Answer: D

133) Find the total surface area of a regular square pyramid with base edges 1.67 cm and lateral edges 3.91 cm.

A) 12.8 cm^2 B) 15.8 cm^2 C) 15.5 cm^2 D) 16.1 cm^2

Answer: C

134) Find the lateral surface area of a right circular cone with a radius of 55.3 cm and a slant height of 93.7 cm.

A) 16,300 cm^2 B) 300,000 cm^2 C) 25,900 cm^2 D) 8140 cm^2

Answer: A

135) Find the lateral surface area of a regular pyramid with a perimeter of 3.27 ft and a slant height of 2.09 ft.

A) 6.83 ft^2 B) 6.69 ft^2 C) 3.42 ft^2 D) 2.28 ft^2

Answer: C

136) A cylindrical drain pipe is 6 inches across the top and about 11 inches high. How many cubic inches of water could it hold?

A) 300 $in.^3$ B) 600 $in.^3$ C) 400 $in.^3$ D) 1000 $in.^3$

Answer: A

137) The foundation for a cylindrical water tank is a cylinder 14 m in diameter and 5.0 m high. How many cubic m of concrete are needed to build the foundation?

A) 3100 m^3 B) 1500 m^3 C) 440 m^3 D) 770 m^3

Answer: D

138) A certain marine engine has cylinders that are 3.23 inches in diameter and 5.54 inches deep. Find the total volume of 8 cylinders.

A) 726 $inches^3$ B) 363 $inches^3$ C) 899 $inches^3$ D) 45.4 $inches^3$

Answer: B

139) A shipping container has dimensions of 4.8 ft x 4.9 ft x 7.7 ft. What is its volume?

A) 180 ft^3 B) 120 ft^3 C) 180 ft^3 D) 290 ft^3

Answer: C

140) A model of a pyramid has a square base 450 cm on a side and a height of 170 cm. Find the volume.

A) 34,000,000 cm^3 B) 11,000,000 cm^3 C) 11,500,000 cm^3 D) 9,500,000 cm^3

Answer: B

141) A dog toy is constructed in the shape of a cylinder with a length of 6.6 in. The cylinder has a hemisphere at each end. The diameter is 2.2 in. Find the total volume.

A) 25 $in.^3$ B) 31 $in.^3$ C) 140 $in.^3$ D) 28 $in.^3$

Answer: B

Answer Key
Testname: UNTITLED2

1) D
2) A
3) B
4) B
5) B
6) B
7) D
8) B
9) D
10) A
11) A
12) B
13) A
14) A
15) A
16) A
17) C
18) B
19) B
20) B
21) D
22) A
23) B
24) D
25) B
26) A
27) A
28) C
29) C
30) B
31) D
32) D
33) D
34) D
35) A
36) A
37) D
38) D
39) A
40) B
41) C
42) D
43) D
44) D
45) B
46) D
47) C
48) A
49) A
50) B

51) A
52) A
53) A
54) B
55) A
56) C
57) C
58) C
59) D
60) A
61) C
62) A
63) B
64) C
65) A
66) D
67) A
68) C
69) A
70) C
71) C
72) B
73) D
74) A
75) C
76) B
77) B
78) D
79) B
80) D
81) C
82) A
83) C
84) A
85) D
86) D
87) D
88) C
89) A
90) B
91) D
92) A
93) B
94) B
95) C
96) D
97) D
98) C
99) C
100) C

Answer Key
Testname: UNTITLED2

101) D
102) A
103) A
104) B
105) C
106) D
107) B
108) D
109) C
110) A
111) C
112) B
113) C
114) C
115) A
116) D
117) D
118) A
119) C
120) A
121) D
122) C
123) B
124) B
125) A
126) A
127) A
128) A
129) B
130) B
131) D
132) D
133) C
134) A
135) C
136) A
137) D
138) B
139) C
140) B
141) B