

Find the requested angle.

1) Complement of 46°

- A) 44° B) 314° C) 92° D) 134°

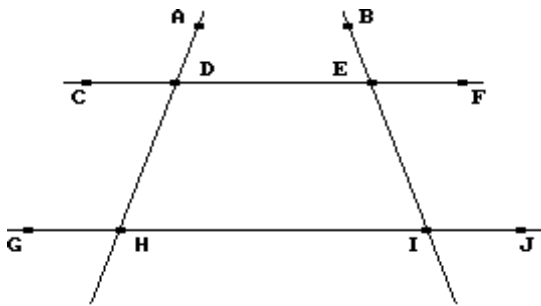
1) _____

2) Supplement of 65°

- A) 130° B) 295° C) 115° D) 25°

2) _____

Refer to this figure to answer the question. Assume \overleftrightarrow{CF} and \overleftrightarrow{GJ} are parallel.



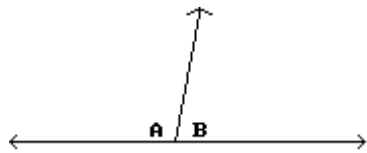
3) Are $\angle GHD$ and $\angle ADE$ supplementary?

- A) Yes B) No

3) _____

Find the measure of the angles.

4)

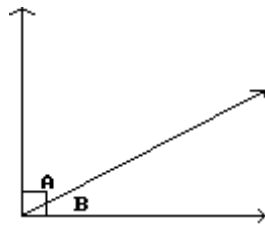


$\angle A = (7m)^\circ$, $\angle B = (5m)^\circ$

- A) 52.5° and 37.5° B) 210° and 150° C) 105° and 75° D) 100° and 80°

4) _____

5)



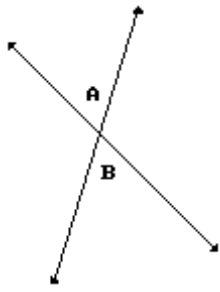
$\angle A = (2p)^\circ$, $\angle B = p^\circ$

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

5) _____

6)

6) _____



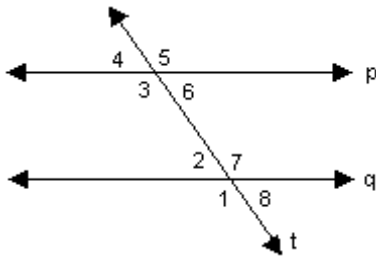
$\angle A = (7x - 63)^\circ$, $\angle B = (5x - 37)^\circ$

- A) 152° and 152° B) 152° and 28° C) 28° and 28° D) 62° and 62°

Use the properties of parallel lines to solve the problem.

7) If $p \parallel q$ and $m\angle 8 = 40^\circ$, what are the measures of the other angles?

7) _____



Solve the problem.

8) The difference between two complementary angles is 85° . What is the measure of the larger angle?

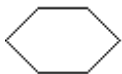
8) _____

- A) 2.5° B) 5° C) 87.5° D) 132.5°

Decide whether the figure is convex or not convex.

9)

9) _____



- A) Convex B) Not convex

10)

10) _____



- A) Convex B) Not convex

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

11)

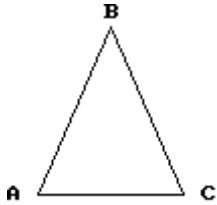
11) _____



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

Find the measure of each unknown angle in triangle ABC.

12)



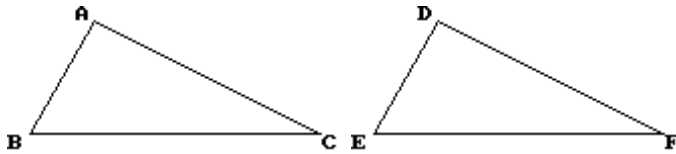
$\angle A = x^\circ, \angle B = 48^\circ, \angle C = x^\circ$

- A) $\angle A = \angle C = 58^\circ$ B) $\angle A = \angle C = 48^\circ$ C) $\angle A = \angle C = 76^\circ$ D) $\angle A = \angle C = 66^\circ$

12) _____

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

13) $\angle E$



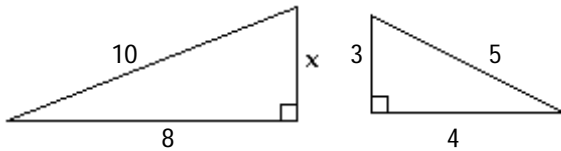
$\triangle ABC \sim \triangle DEF, \angle B = 59^\circ, \overline{EF} = 10 \text{ cm}$

- A) 10 cm B) 31° C) 90° D) 59°

13) _____

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

14)



- A) $x = 6$ B) $x = 9$ C) $x = 3$ D) $x = 4$

14) _____

Solve the problem.

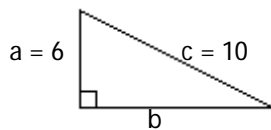
15) A tree casts a shadow 18 m long. At the same time, the shadow cast by a 51-cm tall statue is 56 cm long. Find the height of the tree. Round results to the nearest unit.

- A) 18 m B) 16 m C) 15 m D) 20 m

15) _____

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

16)



- A) $b = 9$ B) $b = 7$ C) $b = 10$ D) $b = 8$

16) _____

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

17) For any integer n greater than 1,

17) _____

$$(2n, n^2 - 1, n^2 + 1)$$

is a Pythagorean triple .

Use this method with the value $n = 8$ to generate a Pythagorean triple.

A) (16, 64, 128)

B) (16, 63, 65)

C) (8, 15, 17)

D) (8, 49, 81)

Solve the problem.

18) A ladder is resting against a wall. The top of the ladder touches the wall at a height of 6 ft. Find the length of the ladder if the length is 2 ft more than its distance from the wall.

18) _____

A) 10 ft

B) 8 ft

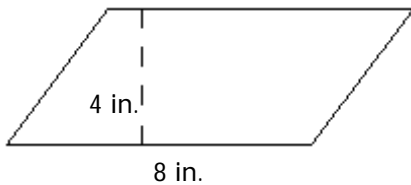
C) 12 ft

D) 6 ft

Find the area.

19)

19) _____



(a parallelogram)

A) 16 in^2

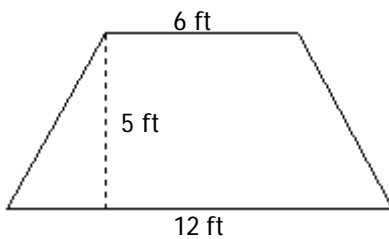
B) 32 in^2

C) 12 in^2

D) 64 in^2

20)

20) _____



(a trapezoid)

A) 45 ft^2

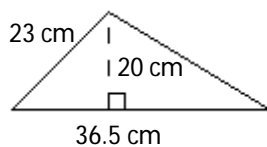
B) 36 ft^2

C) 23 ft^2

D) 90 ft^2

21)

21) _____



A) 365 cm^2

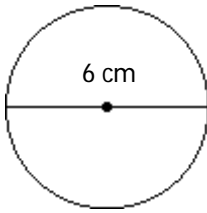
B) 230 cm^2

C) 730 cm^2

D) 200 cm^2

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

22)



A) 37.68 cm^2

B) 113.04 cm^2

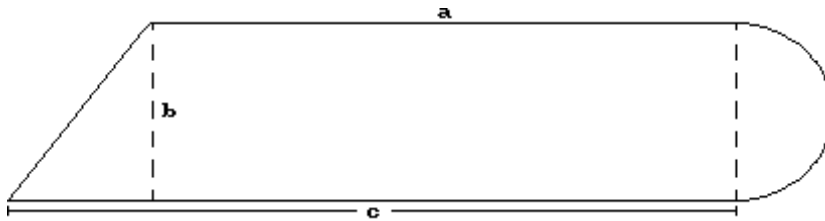
C) 28.26 cm^2

D) 18.84 cm^2

22) _____

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

23)



$a = 12 \text{ in.}, b = 8 \text{ in.}, c = 18 \text{ in.}$

A) 170.2 in.^2

B) 145.1 in.^2

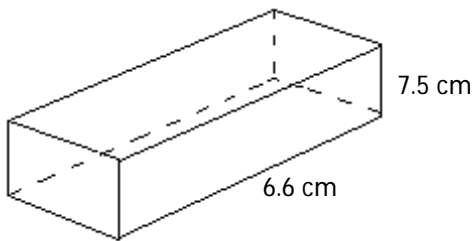
C) Not enough data

D) 169.1 in.^2

23) _____

Find the volume.

24)



4.3 cm

A) 212.850 cm^3

B) 53.80 cm^3

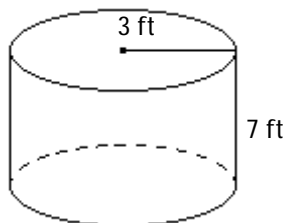
C) 212.850 cm^2

D) 18.4 cm^3

24) _____

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

25) _____



A) 197.82 ft^3

B) 131.88 ft^3

C) 65.94 ft^3

D) 791.28 ft^3

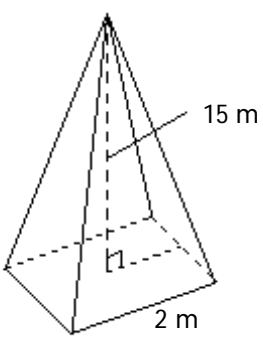
26) Find the volume of the circular cone of height 66 m and radius 21 m. Use 3.14 for π . Round your answer to the nearest whole number. 26) _____

- A) $91,393 \text{ m}^3$ B) $30,464 \text{ m}^3$ C) $95,745 \text{ m}^3$ D) 1451 m^3

27) A sphere with radius 4.0 m. Use 3.14 for π . Round your answer to the nearest thousandth. 27) _____

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

28) 28) _____



Square-based pyramid

- A) 60 m^3 B) 64 m^3 C) 30 m^3 D) 20 m^3

Answer Key

Testname: PRACTICE03

- 1) A
- 2) C
- 3) A
- 4) C
- 5) B
- 6) C
- 7) $m\angle 2 = m\angle 4 = m\angle 6 = 40^\circ$, $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 140^\circ$
- 8) C
- 9) A
- 10) B
- 11) D
- 12) D
- 13) D
- 14) A
- 15) B
- 16) D
- 17) B
- 18) A
- 19) B
- 20) A
- 21) A
- 22) C
- 23) B
- 24) A
- 25) A
- 26) B
- 27) D
- 28) D