Module 9 Review (Quiz) Right Triangles and Trigonometry

* Required

* This form will record your name, please fill your name.
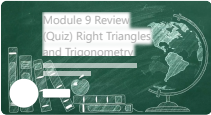
[   ]

1

An observer on a cliff 500 meters above sea level sights two ships due east. The angles of depression of the ships are 42˚ and 27˚. Find, to the nearest meter, the distance between the two ships. * (1 Point)
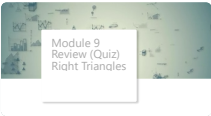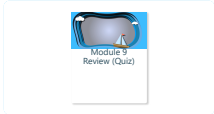
○ 981 meters

○ 555 meters

○ 426 meters

○ 500 meters

2

What is the height of the kite? Number answer only. *
(1 Point)

A **200** foot string attached to a kite makes a **35°** angle with the ground. What is the height of the kite to th
foot?
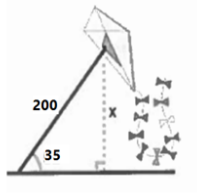
3

How far is Carlos from the base of the tree? Draw a picture to
help find answer. Round to the nearest foot and put your
number answer only. * (1 Point)

TREES General Sherman, a tree located in Sequoia National Park, stan
125 feet tall. To see the top of the tree, Carlos looks up at a **20°** angle c
elevation. If Carlos is **5** feet tall, how far is he from the base of the tree
the nearest foot?

4

Determine the angle of elevation as shown below. Number
answer only - round to the nearest degree. * (1 Point)

Find the angle measure below. Round to the nearest degree.

_____
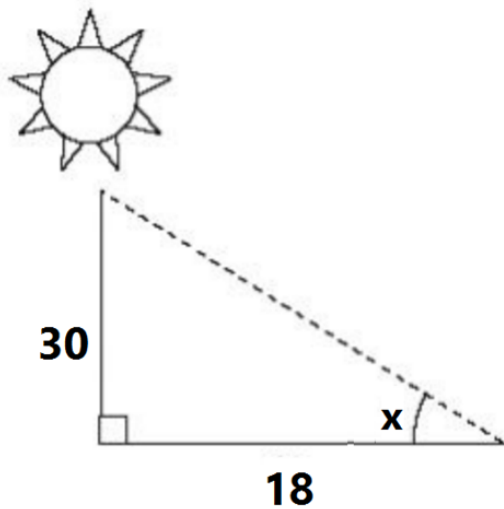
5

What is the length of each side of the square? * (1 Point)

The diagonal of a square is **20** inch long. What is the length, in inches, each side of the square?

$10\sqrt{}$

○ A

○ B = 10

$20\sqrt{}$

○ C

○ D = 20

6

Which equation will you be able to use in order to solve the
height of the wall? * (1 Point)

A **15** foot ladder that is leaning against a wall makes a **60.5**$^\circ$ angle with the level ground.

Which of the following equations can be used to determine the height, y, above the ground, in feet, that th
touches the wall?

(A) $\cos \mathbf{60.5} = \dfrac{Y}{15}$

(B) $\cos \mathbf{60.5} = \dfrac{15}{Y}$

(C) $\sin \mathbf{60.5} = \dfrac{Y}{15}$

(D) $\sin \mathbf{60.5} = \dfrac{15}{Y}$

○ A

○ B

○ C

○ D

7

What is the height of the wall? Round to the nearest foot. *
(1 Point)

A **15** foot ladder that is leaning against a wall makes a **60.5**$^\circ$ angle with the level gro
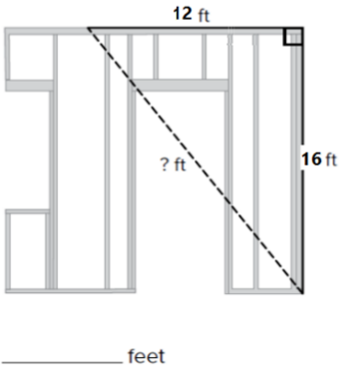
What is the height of the wall?

○ 13 feet

○ 7 feet

○ 27 feet

8

What is the missing distance shown in the image to the right? * (1 Point)

If a carpenter measures **16** feet along the vertical side and **12** feet along the horizontal side and makes a mark at both of these spots, what should the distance between the marks be if the wall is square?
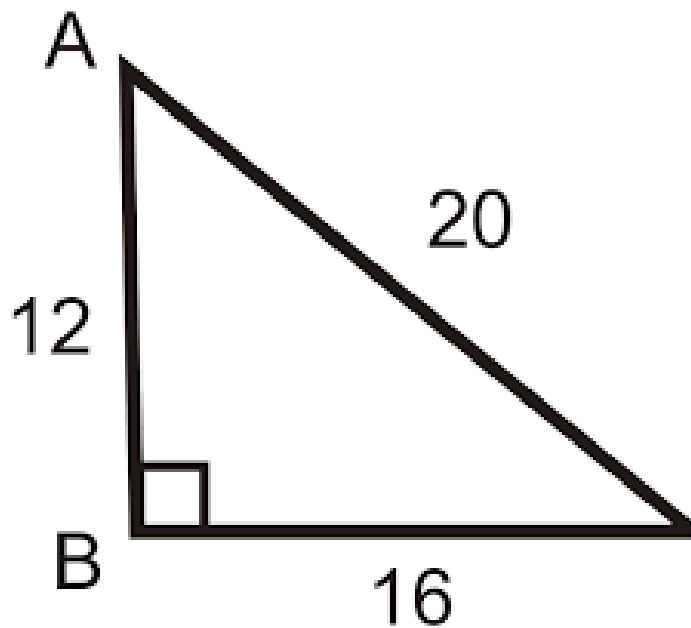
12 ft

? ft   **16** ft

_____ feet

9

Determine the Sine of Angle A. Express the answer as a ratio in
simplest form. * (1 Point)

A
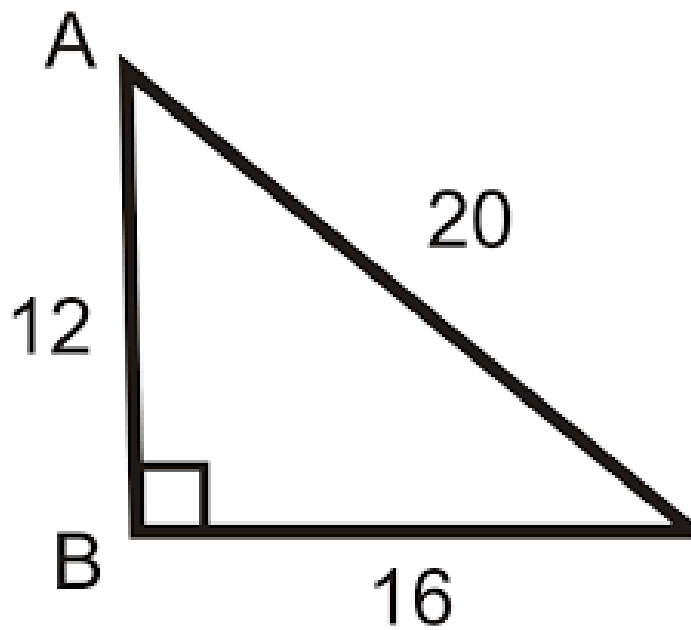
20

12

B

16
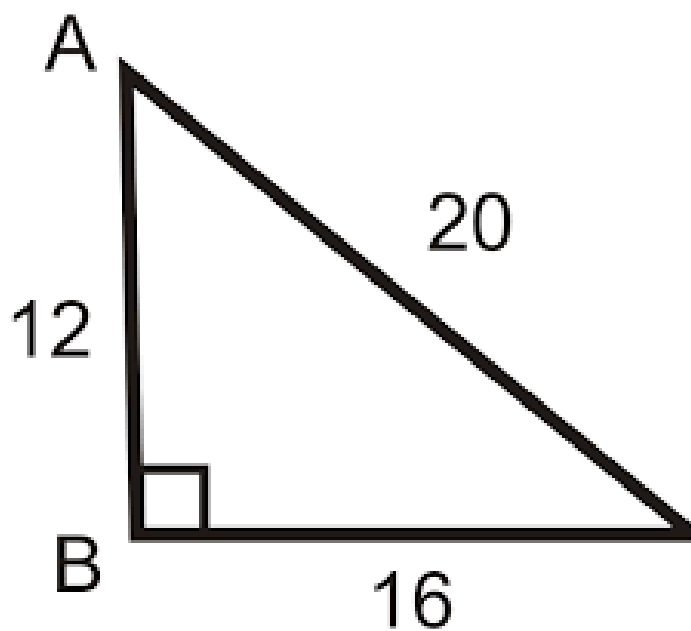
○ 4/5

○ 3/5

○ 4/3

○ 3/4

10

Determine the Cosine of Angle A. Express the answer as a ratio
in simplest form. * (1 Point)

- ○ 4/5
- ○ 3/5
- ○ 4/3
- ○ 3/4

11

Determine the Tangent of Angle A. Express the answer as a
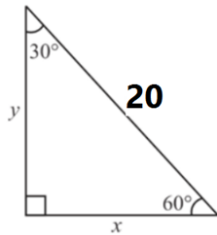ratio in simplest form. * (1 Point)

- 4/5
- 3/5
- 4/3
- 3/4

12

Solve for the missing side (x). What is the length of the base of
the triangle. * (1 Point)

A $30° - 60° - 90°$ triangle is shown below. Find the value of x and

x= [   ]   y= [   ]

○ A) 10   ○ B) 20

$$10\sqrt{\quad} \quad 20\sqrt{\quad}$$

○ C)   ○ D)
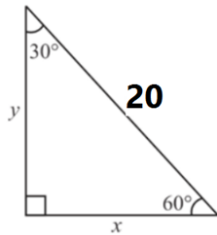
13

Solve for the missing side (y). What is the height of the base of
the triangle. * (1 Point)

A $30° - 60° - 90°$ triangle is shown below. Find the value of x and

x= [   ]   y= [   ]

A) 10   B) 20

$$10\sqrt{}\quad 20\sqrt{}$$
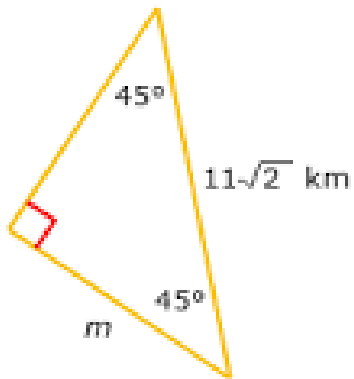
C)   D)

14

Solve for the missing side length (m). Number answer only. *
(1 Point)
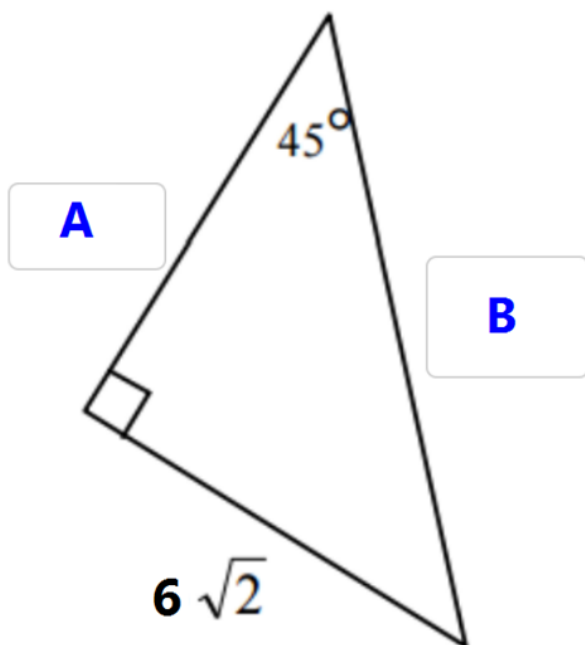
Find m.

Write your answer in simplest radical l

[   ] kilometers

15

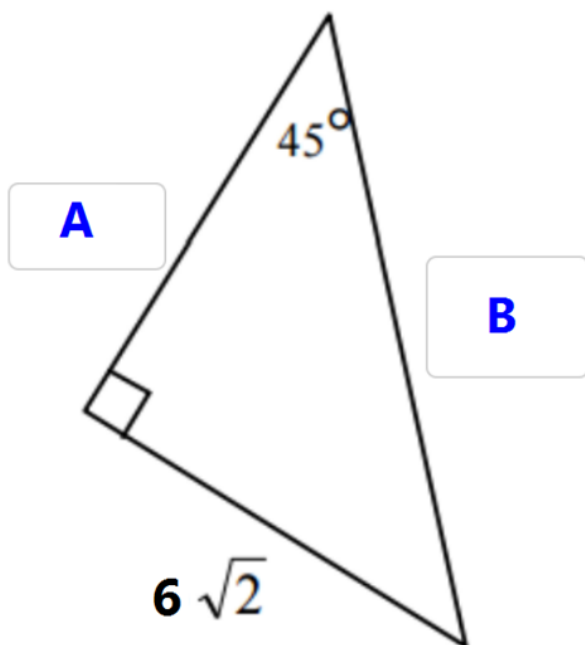Determine the length of the height of the triangle (Side A). *
(1 Point)

A) 12   B) 6

C) 6   D) 12

16

Determine the length of the hypotenuse of the triangle (Side
B). * (1 Point)

A) 12   B) 6

C) 6   D) 12

17

Question * (1 Point)

STORMS During a storm, a tree breaks 4 fe
above the ground and falls to form a right
triangle.

If the top of the tree rests 11 feet from the
base of the tree, approximately how tall wa
the tree before the storm?

○ 23 feet

○ 16 feet

○ 27 feet

○ 12 feet

18

What kind of triangle has the following side lengths: 6,8, and
9? * (1 Point)

○ acute

○ obtuse

○ right

○ can't be a triangle

19

What kind of triangle has the following side lengths: 6,8, and
10? * (1 Point)

○ acute

○ obtuse

○ right

○ can't be a triangle

20

What kind of triangle has the following side lengths: 6,8, and
11? * (1 Point)

○ acute

○ obtuse

○ right

○ can't be a triangle

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