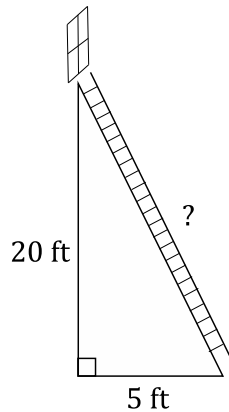


Right Triangle Word Problems Questions

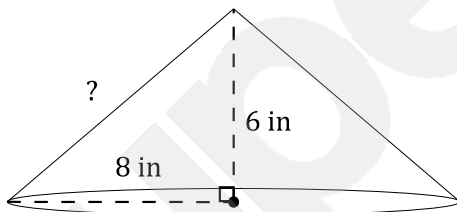
1. CALCULATOR



A castle has a window that is 20 feet above the base of the house. Underneath the window, there is a river moat that extends 5 feet away from the wall. If someone were to climb up to the window, at least how long would the ladder have to be to clear the moat and reach the window? (*no calculator*)

- A) 425 feet
- B) $5\sqrt{17}$ feet
- C) $3\sqrt{7}$ feet
- D) $2\sqrt{7}$ feet

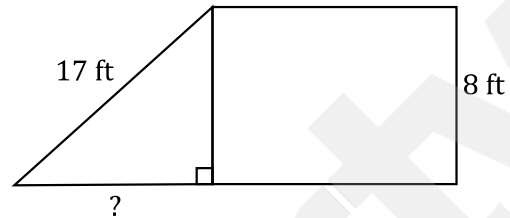
2.



A cone is pictured above with its dimensions. With the information given, what is the slant height of the cone? (*no calculator*)

- A) 5 in
- B) 10 in
- C) 48 in
- D) 16 in

3.

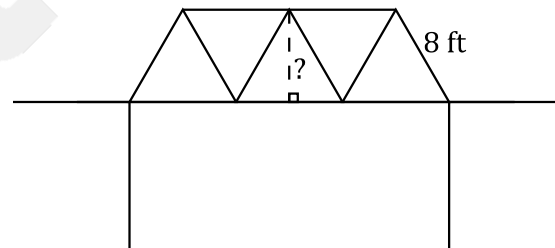


A skatepark is designing a ramp that skaters can use to get onto a wooden platform. If the platform has a height of 8 feet and the top of the ramp is 17 feet, how far away will the ramp extend from the platform?

(*calculator*)

- A) 225 ft
- B) 17 ft
- C) 15 ft
- D) 8 ft

4.

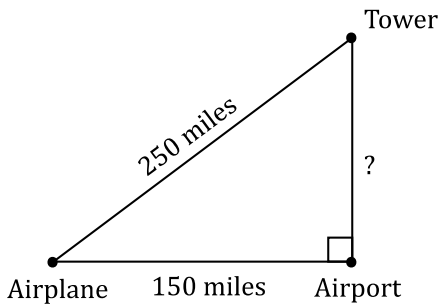


A bridge has equilateral triangles that act as support beams to keep the bridge from falling. If the sides of the equilateral triangle are 8 feet, then what is the height of the bridge? (*no calculator*)

- A) $4\sqrt{3}$ feet
- B) 4 feet
- C) $5\sqrt{3}$ feet
- D) 8 feet

Right Triangle Word Problems Questions

5.



A plane flies towards an airport that is 150 miles away. An air traffic control tower contacts the plane, letting the pilot know that they are 250 miles away from the tower. If the location of the plane, tower, and airport is shown in the diagram, how far is the airport from the tower?

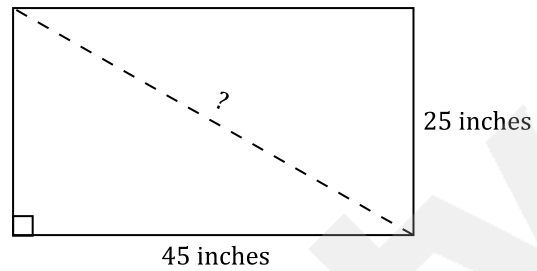
(calculator)

- A) 50 miles
- B) 100 miles
- C) 150 miles
- D) 200 miles

6. A square napkin with a perimeter of 28 inches is folded in half diagonally into a triangle. What is the perimeter of the triangle napkin? (no calculator)

- A) $28 + 7\sqrt{2}$ in
- B) $14 + 9\sqrt{3}$ in
- C) $14 + 7\sqrt{2}$ in
- D) $28 + 7\sqrt{11}$ in

7.

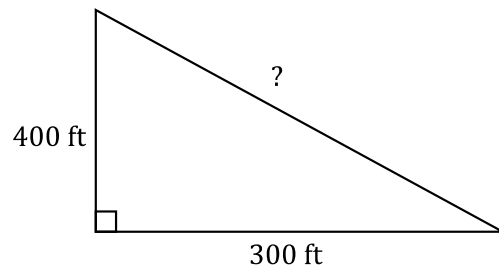


Charlene is looking to buy a new TV for her apartment. There is a space in the wall that measures 45 inches in length and 25 inches in width. However, the electronics store measures the size of their TV's by their diagonal lengths. What is the approximate length of the largest TV Charlene can buy?

(calculator)

- A) 27.4 in
- B) 51.5 in
- C) 46.5 in
- D) 72 in

8.

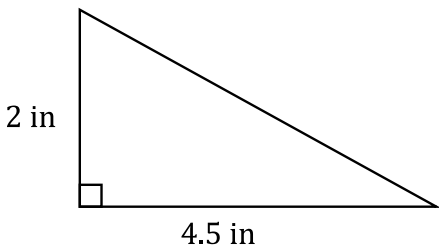


A car is traveling up a hill that has a height of 400 feet. If the car starts at the base of the hill, which is 300 feet away from the top of the hill (as shown below), how far will the car have to drive up the hill? (no calculator)

- A) 500 ft
- B) 100 ft
- C) 750 ft
- D) 600 ft

Right Triangle Word Problems Questions

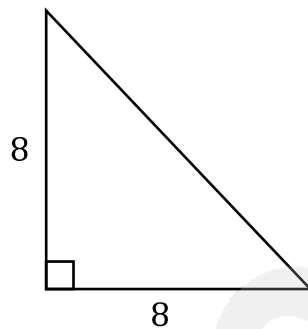
9.



The side profile of a triangular door stop has the dimensions below. What is the approximate length of the longest side of the doorstop's side? (*calculator*)

- A) 20.25 in
- B) 4.92 in
- C) 5.11 in
- D) 6.26 in

10.



A company manufactures boomerangs in the shape of isosceles right triangles. If the wings of the boomerangs are both 8 inches long, then what is the length of the space between the boomerang's tips? (*no calculator*)

- A) 64 in
- B) $7\sqrt{3}$ in
- C) $8\sqrt{2}$ in
- D) $4\sqrt{2}$ in