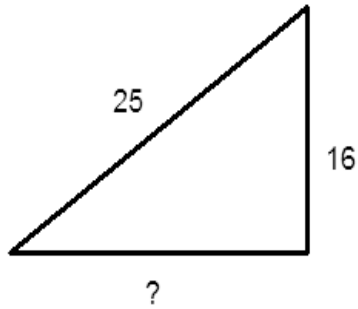
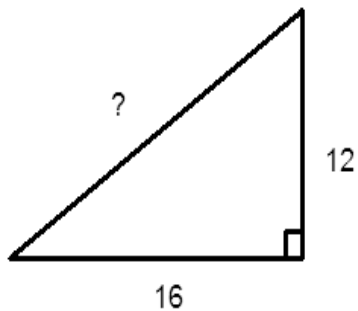


Pythagorean Theorem Exercises

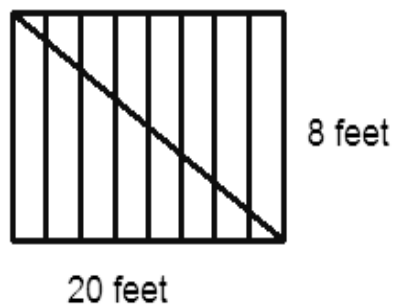
1. Find the length of the missing side: $a = 6$, $b = 8$, and $c = ?$
2. Find the length of the missing side. $a = 12$, $c = 20$, $b = ?$
3. Find the length of the missing leg in the diagram below: (Round answer to the nearest tenth)



4. Find the length of the missing side.

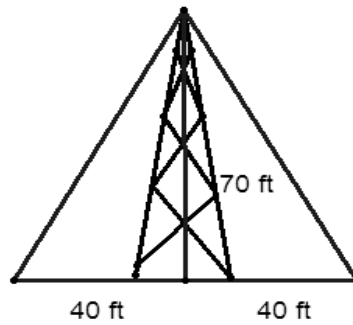


5. A rectangular shaped lot is 80 ft by 60 ft. How many feet would you save walking diagonally across the lot instead of walking length and width?
6. A diagonal brace is to be placed in the wall of a room. The height of the wall is 8 feet and the wall is 20 feet long. (See diagram below) What is the length of the brace?

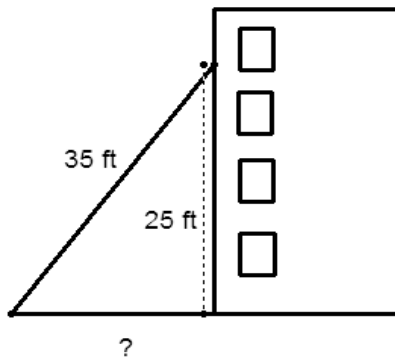


7. Find the length of the diagonal of a rectangle that is 30 ft by 40 ft.
8. Find the length of the diagonal of a rectangle that is 30 ft by 30 ft.

9. A television antenna is to be erected and held by guy wires. If the guy wires are 40 ft from the base of the antenna and the antenna is 70 ft high, what is the length of the guy wire?



10. Given that 35 foot ladder rest against a window ledge that is 25 feet above the ground, find out how far is the ladder from the edge the building?



Solutions

1. $c = 10$
2. $b = 16$
3. 19.2
4. 20
5. Distance walking diagonally = 100 ft: Distance saved walking diagonally = 40 ft
6. 21.5 ft
7. 50 ft
8. 42.4 ft
9. 80.6 ft
10. 24.5 ft