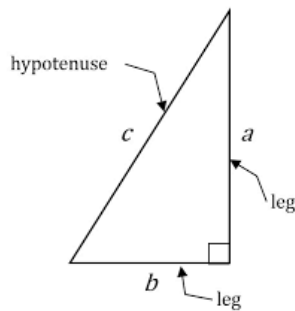


Notes:

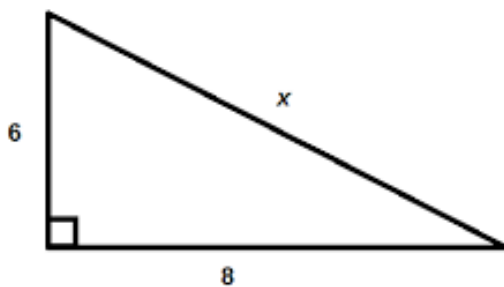
The Pythagorean Theorem is $a^2 + b^2 = c^2$. The longest side of a right triangle is called the hypotenuse. The other two sides are called legs.



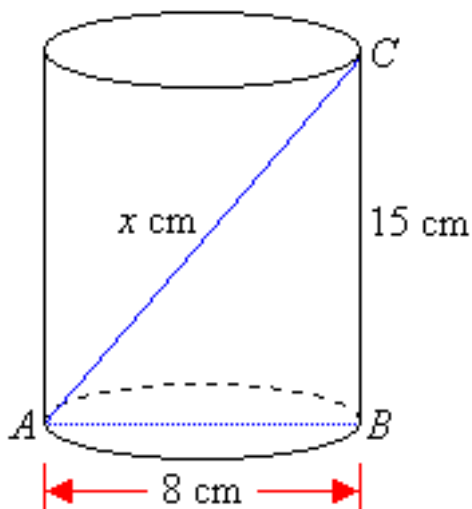
If you need to solve for one of the legs (let's say, for side "a"), then you could rewrite the Pythagorean Theorem by subtracting b^2 from both sides to make it: $a^2 = c^2 - b^2$.

Tip: For the following problems, make sure you know whether you need to solve for the hypotenuse or a leg, and use the correct version of the formula for each problem.

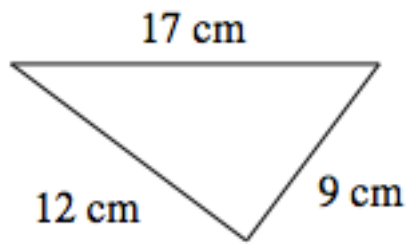
1. Solve for x .



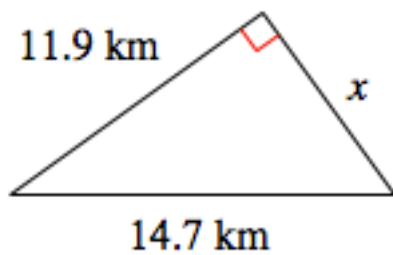
2. Solve for x .



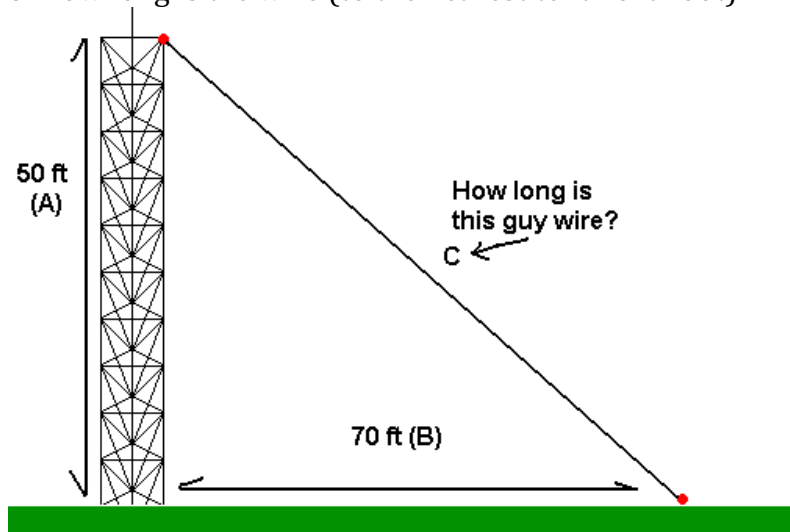
3. Is this a right triangle?



4. Solve for x to the nearest tenth of a km.

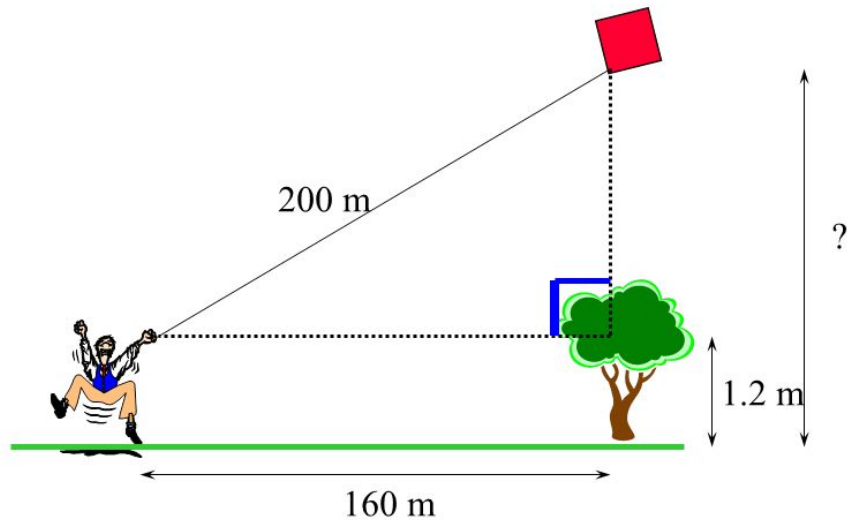


5. How long is the wire (to the nearest tenth of a foot)?



6.

Peter, who is 1.2 m tall, is flying a kite at a distance of 160 m from a tree. He has released a string of 200 m long and the kite is vertically above the tree. Find the height of the kite above the ground.



Answers

- 1) 10
- 2) 17 cm
- 3) No, because $9^2 + 12^2$ does not equal 17^2
- 4) 8.6 km
- 5) 86.0 ft
- 6) 118.8 m