



Grade 8

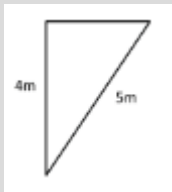
Mathematics

Pythagoras

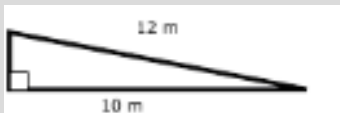
Question 1: Use Pythagoras to find the length of the missing side of these right-angled triangles

(You may use a calculator if you choose)

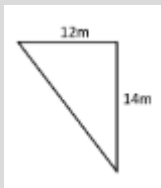
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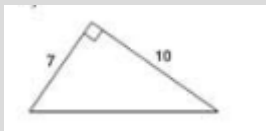
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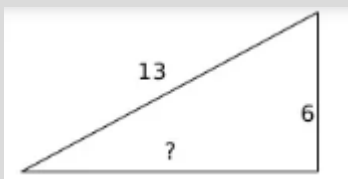
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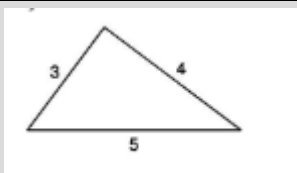


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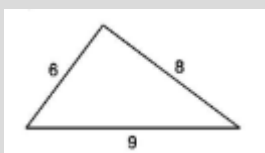


Question 2: Use Pythagoras to prove that these are right-angled triangles (if $a^2 + b^2 = c^2$ then they are)

1.



2.



3. Words problems – using Pythagoras

1. Mali was flying her kite. She had a 25m line, and the kite was flying 9m in front of her. How high off the ground was her kite?
2. Eva wants to get to the top of a 2m wall. She has a 3m ladder. If she wants the ladder to get her to exactly the top of the wall (without sticking up) how far away from the wall should she place it?
3. Feroza has walked 4km north and 3km east. How far (in a straight line) is she from where she started?
4. Cristiano has a rectangular garden that is 6m by 8m. He wants to divide it equally into 2 triangles (corner to opposite corner). How much fencing should he buy?