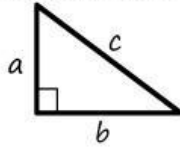


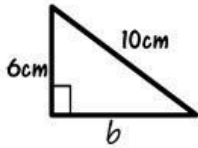
Pythagorean Theorem

Consider any right triangle where the short sides have lengths a and b and the hypotenuse has length c .

Then the Pythagorean theorem is $a^2 + b^2 = c^2$:



Example



Using the theorem, you have $6^2 + b^2 = 10^2$

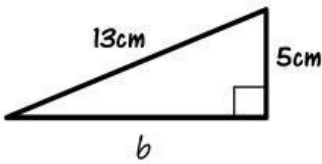
$$36 + b^2 = 100$$

$$b^2 = 100 - 36 \text{ so, } b^2 = 64$$

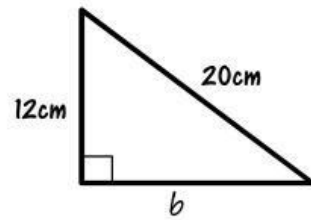
$$b = \sqrt{64}$$

$$b = 8$$

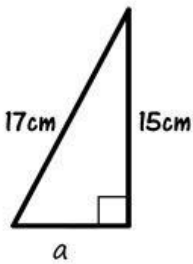
Using the Pythagorean theorem, calculate the value of the missing length and draw an arrow to the matching answer in the middle of the worksheet.



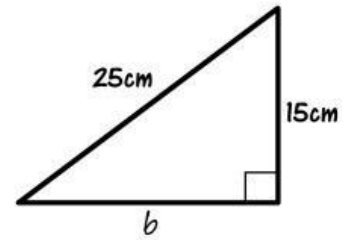
21cm



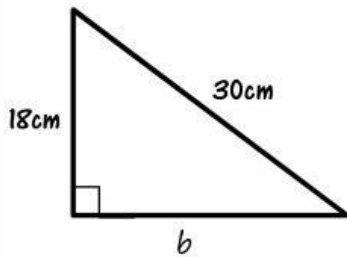
12cm



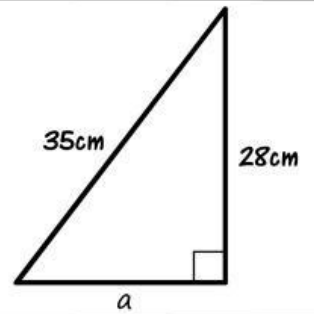
8cm



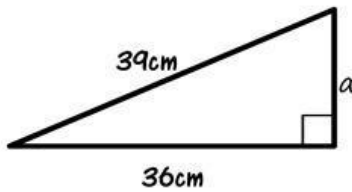
16cm



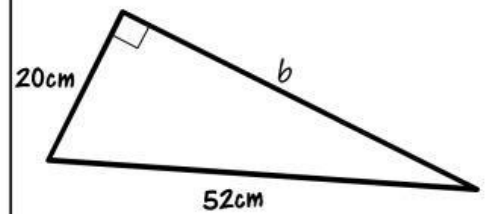
24cm



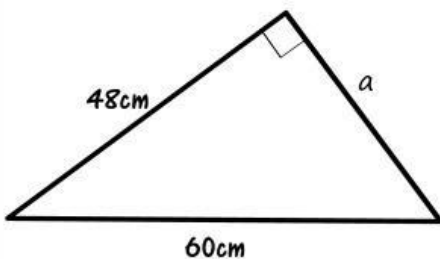
32cm



15cm



20cm



36cm



48cm