

6 Pythagoras' theorem — Part 1 — Answers

Answers

Work through these after trying the questions yourself.

6.1 The longest side, opposite the right angle.

6.2 $a^2 + b^2 = c^2$ (where c is the hypotenuse).

6.3 $c^2 = 6^2 + 8^2 = 36 + 64 = 100$, so $c = 10$ cm.

6.4 $c^2 = 5^2 + 12^2 = 25 + 144 = 169$, so $c = 13$ cm.

6.5 Yes — $3^2 + 4^2 = 9 + 16 = 25 = 5^2$.

6.6 The diagonal is the hypotenuse: $d^2 = 40^2 + 30^2 = 1600 + 900 = 2500$, so $d = \sqrt{2500} = 50$ m.