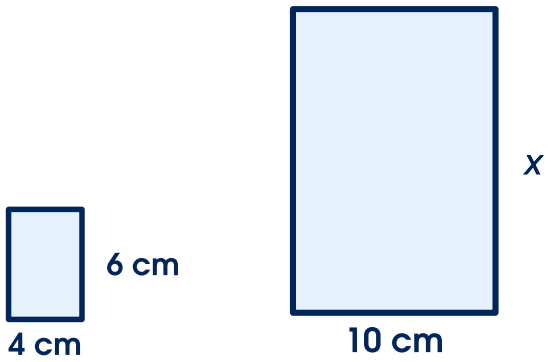
GCSE FOUNDATION · REVISION MAT 1

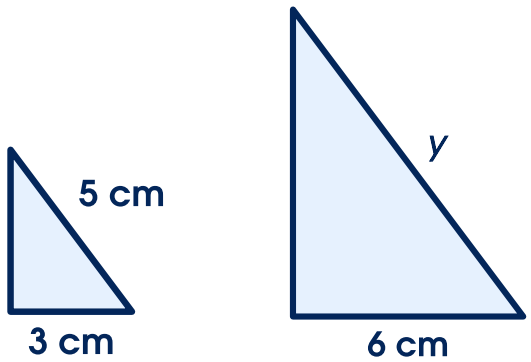
Similar shapes

1 These two rectangles are similar.



Work out the length x.

2 These two triangles are similar.



Work out the length y.

3 Rectangle P is 4 cm by 6 cm.
Rectangle Q is 6 cm by 8 cm.

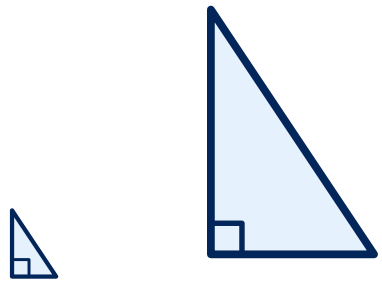
Are the rectangles similar? Explain your answer.

4 Triangle A has sides 3, 4, 5 cm.
Triangle B has sides 7.5, 10, 12.5 cm.

Show that the triangles are similar.

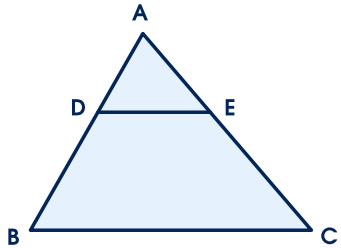
5 A stick 1.2 m tall casts a shadow 0.8 m long.

At the same time, a tree casts a shadow 6 m long.



How tall is the tree?

6 DE is parallel to BC.



AD = 4 cm, AB = 10 cm and DE = 6 cm.

Work out the length of BC.

1 Scale factor = 10 ÷ 4 = 2.5

$x = 6 \times 2.5 =$ **15 cm**

2 Scale factor = 6 ÷ 3 = 2

$y = 5 \times 2 =$ **10 cm**

3 6 ÷ 4 = 1.5

8 ÷ 6 = 1.33333

No: the scale factors are different.

ANSWERS · REVISION MAT 1

Similar shapes

4 7.5 ÷ 3 = 2.5

10 ÷ 4 = 2.5

12.5 ÷ 5 = 2.5

All sides are multiplied by **2.5**,
so the triangles are similar ✓

5 Scale factor = 6 ÷ 0.8 = 7.5

Height = 1.2 × 7.5 = **9 m**

6 Triangles ADE and ABC are similar.

Scale factor = 10 ÷ 4 = 2.5

BC = 6 × 2.5 = **15 cm**

Mr&Mrs MATHS