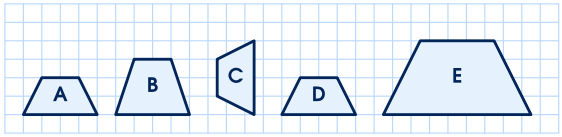
GCSE FOUNDATION · REVISION MAT 4

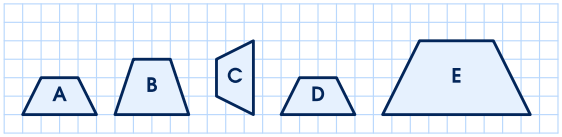
Congruent and similar shapes

1 Here are some shapes on a grid.



Which shapes are congruent to shape A?

2 Here are some shapes on a grid.

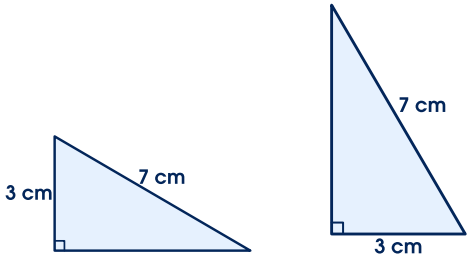


Which shape is similar to shape A but not congruent to it?

3 Two triangles both have angles 45°, 45° and 90°.
One has a shortest side of 6 cm, the other 10 cm.

Explain why the triangles are similar but not congruent.

4 Here are two triangles.



Explain why the two triangles are congruent.
Give the condition you use.

5 Triangles PQR and XYZ are similar.
PQR has sides 3, 4, 6 cm.

The shortest side of XYZ is 7.5 cm.

Work out the lengths of the other two sides of XYZ.

6 Rectangle A is 6 cm by 9 cm.

Rectangle B is similar to rectangle A.
Its shorter side is 10 cm.

Work out the area of rectangle B.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Congruent and similar shapes

1 **C and D**

They are the same shape and size (rotated or reflected).

2 **E**

It is an enlargement of A with scale factor 2.

3 All the angles are equal, so they are the same shape: **similar**.

The sides are different lengths, so they are not the same size: **not congruent**.

4 Right angle, hypotenuse and one other side are equal.

Condition: **RHS**

5 Scale factor = 7.5 ÷ 3 = 2.5

10 cm and **15 cm**

6 Scale factor = 10 ÷ 6 = 1.66667

Longer side = 9 × 1.66667 = 15 cm

Area = 10 × 15 = **150 cm^2**