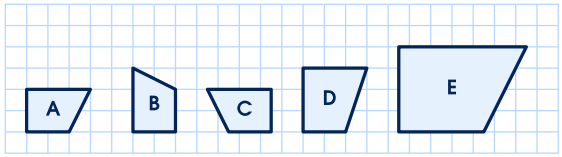
GCSE FOUNDATION · REVISION MAT 5

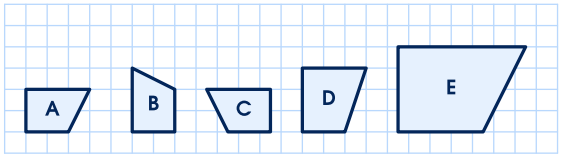
Congruent and similar shapes

1 Here are some shapes on a grid.



Which shapes are congruent to shape A?

2 Here are some shapes on a grid.

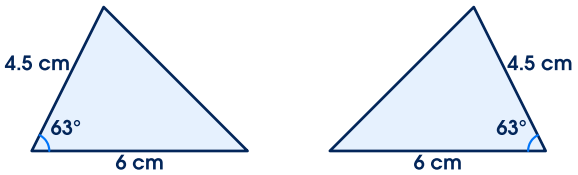


Which shape is similar to shape A but not congruent to it?

3 Two triangles both have angles 30°, 70° and 80°.
One has a shortest side of 7 cm, the other 14 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 8, 10, 12 cm.

The shortest side of XYZ is 12 cm.

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

6 Rectangle A is 2 cm by 7 cm.

Rectangle B is similar to rectangle A.
Its shorter side is 5 cm.

Work out the area of rectangle B.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Congruent and similar shapes

1 **B and C**

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 Two sides and the angle between them are equal.

Condition: **SAS**

5 Scale factor = 12 ÷ 8 = 1.5

15 cm and **18 cm**

6 Scale factor = 5 ÷ 2 = 2.5

Longer side = 7 × 2.5 = 17.5 cm

Area = 5 × 17.5 = **87.5 cm^2**

Mr&Mrs MATHS