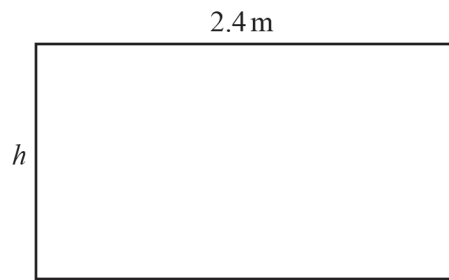
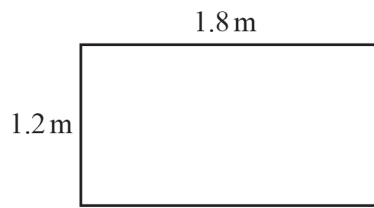


- 1 These two flags are mathematically similar.



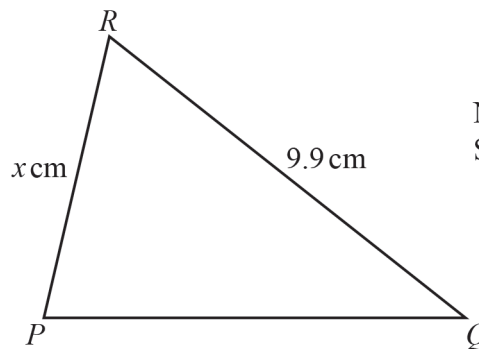
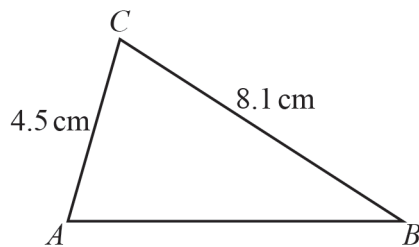
NOT TO
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Calculate the height, h , of the second flag.

$$h = \dots\dots\dots \text{ m } [2]$$

[Total: 2]

2



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Triangle ABC is similar to triangle PQR .

- (a) Find the value of x .

$$x = \dots\dots\dots [2]$$

- (b) The area of triangle PQR is 25 cm^2 .

Calculate the area of triangle ABC .

..... cm^2 [2]

[Total: 4]

- 3 A quadrilateral P is enlarged by a scale factor of 1.2 to give quadrilateral Q .
The area of quadrilateral P is 20 cm^2 .

Calculate the area of quadrilateral Q .

..... cm^2 [2]

[Total: 2]

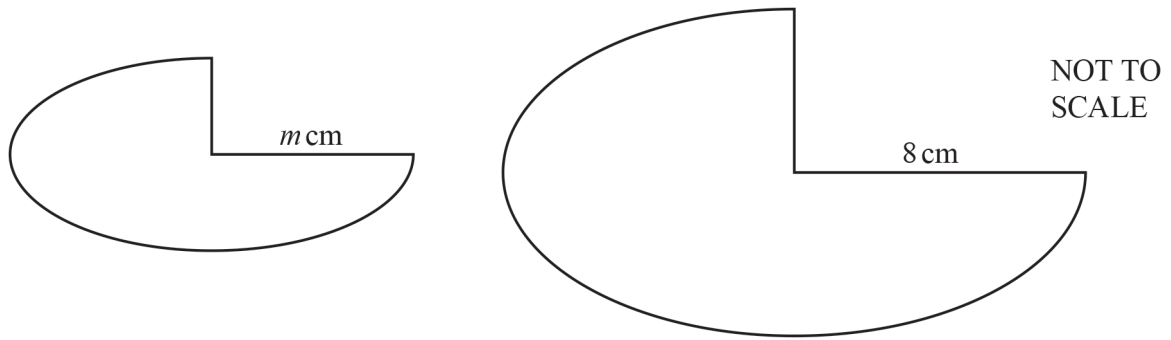
- 4 Two rectangular picture frames are mathematically similar.
The areas of the frames are 350 cm^2 and 1134 cm^2 .
The width of the smaller frame is 17.5 cm .

Calculate the width of the larger frame.

..... cm [3]

[Total: 3]

5



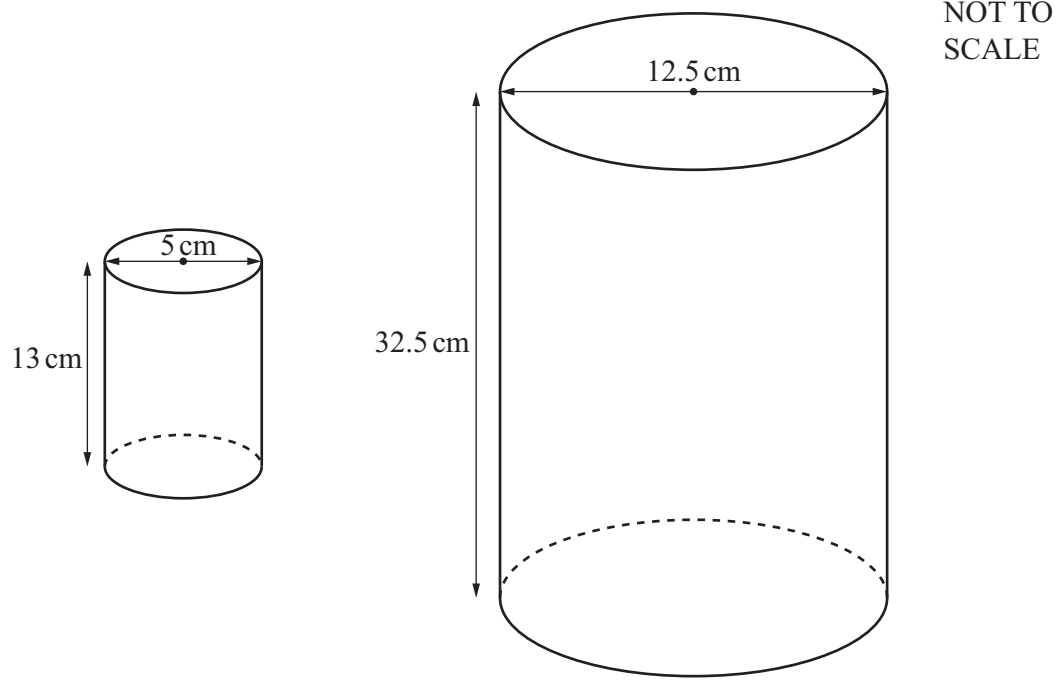
The diagram shows two shapes that are mathematically similar.
 The smaller shape has area 52.5 cm^2 and the larger shape has area 134.4 cm^2 .

Calculate the value of m .

$m = \dots\dots\dots$ [3]

[Total: 3]

6



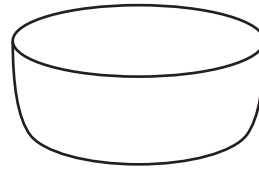
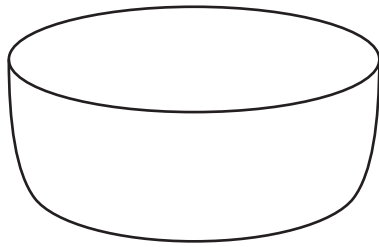
The diagram shows two cylinders.

Show that the two cylinders are mathematically similar.

[2]

[Total: 2]

7

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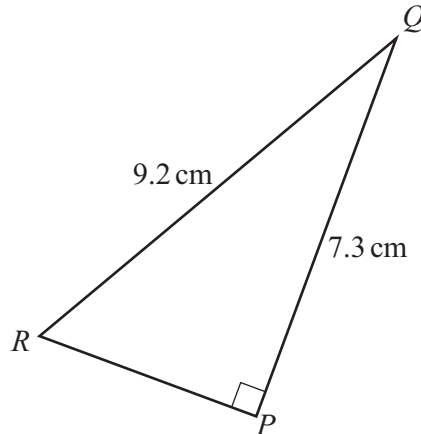
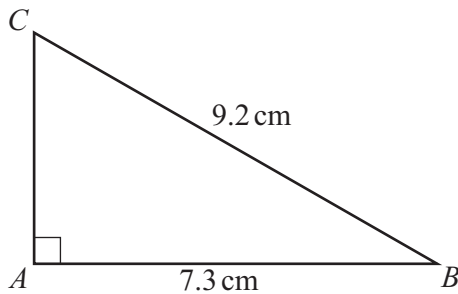
The diagram shows two mathematically similar bowls.
The larger bowl has capacity 7.8 litres and height 11.5 cm.
The smaller bowl has capacity 4 litres.

Calculate the height of the smaller bowl.

..... cm [3]

[Total: 3]

8

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The diagram shows two right-angled triangles, ABC and PQR .

(a) Complete this statement with a geometrical term.

Triangle ABC is to triangle PQR .

[1]

(b) Calculate angle ABC .

Angle $ABC = \dots\dots\dots$ [2]

[Total: 3]