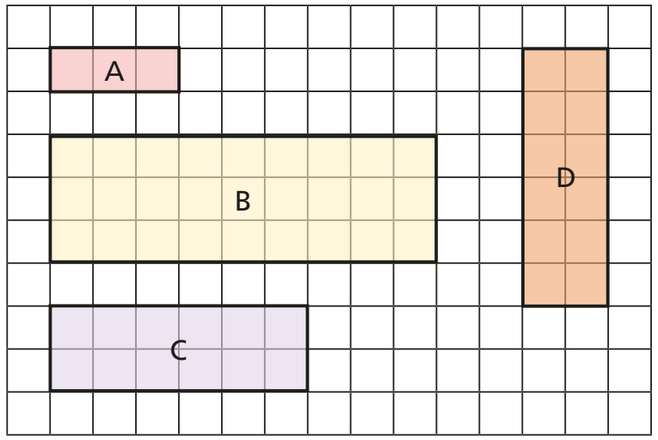
Calculating scale factors

1 Complete the sentences.

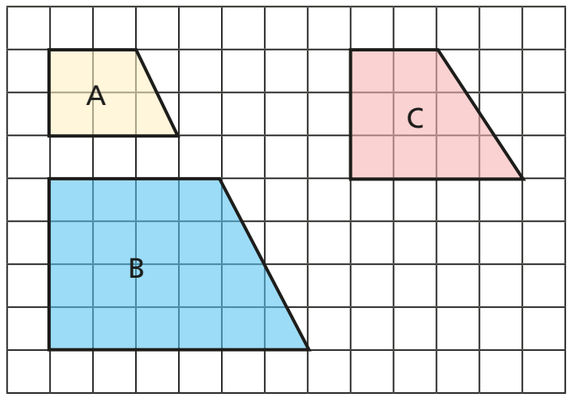


Shape B is an enlargement, by a scale factor of ☐, of shape A.

Shape C is an enlargement, by a scale factor of ☐, of shape A.

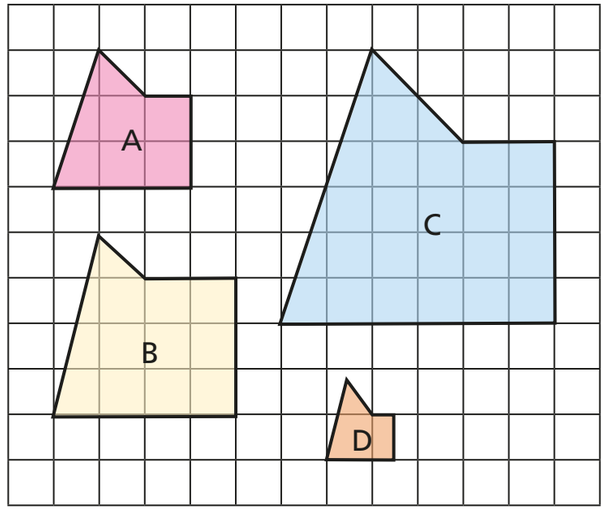
Shape D is an enlargement, by a scale factor of ☐, of shape A.

2 Shape B is an enlargement of shape A. Shape C is not an enlargement of shape A.



Talk to a partner about why this is the case.

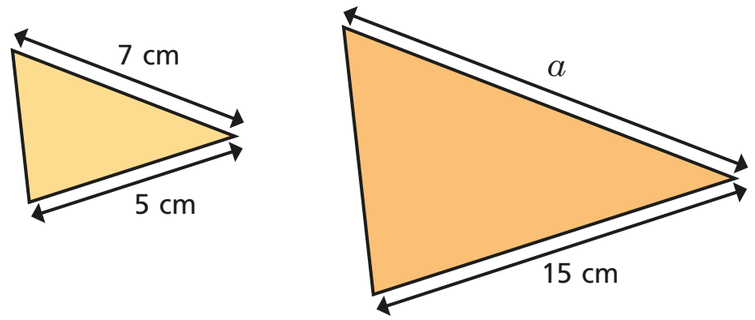
3 Tick all the shapes that are an enlargement of shape A.



How do you know which shapes are enlargements?

4 The two triangles are similar.

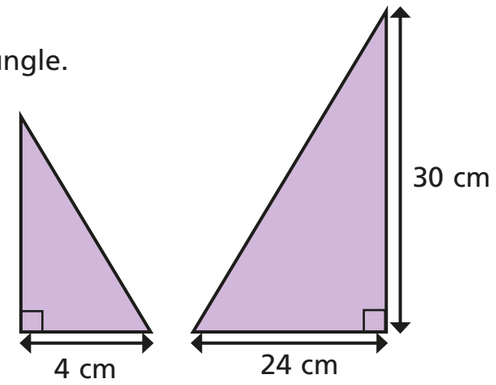
Find the length of a.



a = ☐ cm

5 The two triangles are similar.

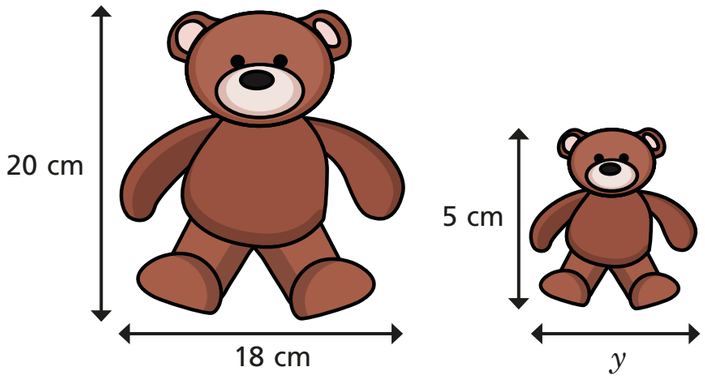
Find the area of the smaller triangle.



area = ☐ cm^2

6 These two children's toys are similar.

Find the length marked y.

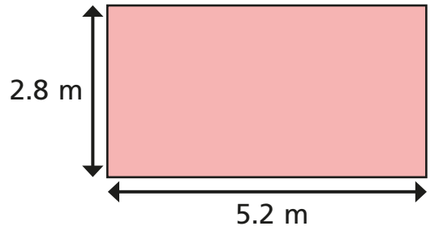


y = ☐ cm

7 The rectangle is enlarged by a scale factor.

The perimeter of the enlarged rectangle is 64 m.

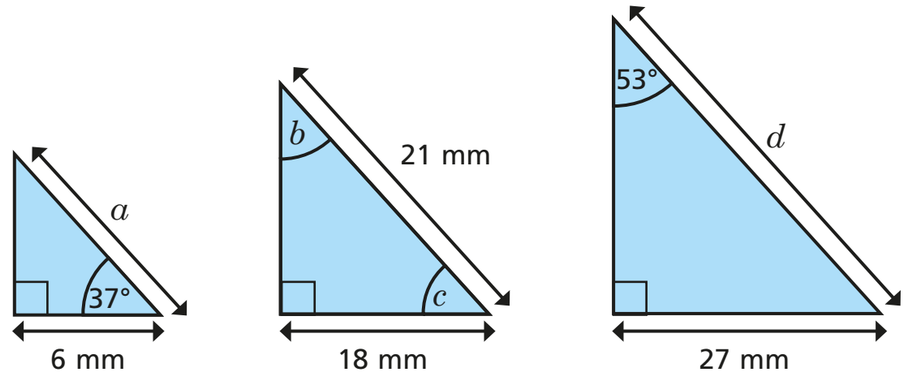
What is the scale factor of enlargement?



scale factor = ☐

8 The diagram shows three similar triangles.

Calculate the missing values.



a = ☐ b = ☐ c = ☐ d = ☐