Find areas of similar shapes given corresponding lengths

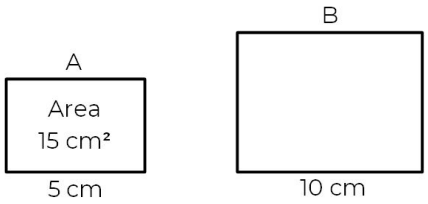
Maths

Mr Chan

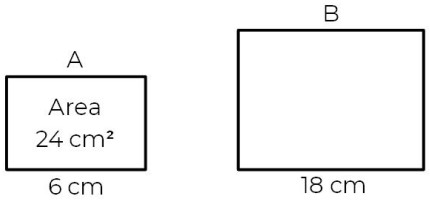
Find areas of similar shapes given corresponding lengths

1. Rectangles A and B are similar in each part.

a) Calculate the area of shape B.

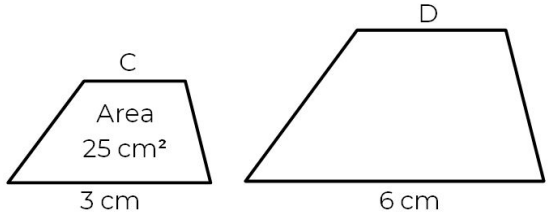


b) Calculate the area of shape B.



2. Shape D is similar to shape C.

Work out the area of shape D.

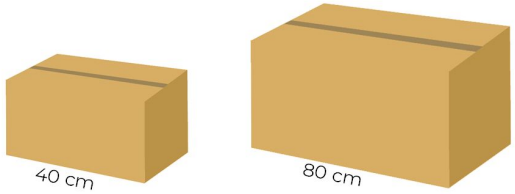


3. Two similar triangles have heights of 5 cm and 15 cm. The area of the smaller triangle is 10 cm^2.

Calculate the area of the larger triangle.

Find areas of similar shapes given corresponding lengths

4. Two boxes are mathematically similar.

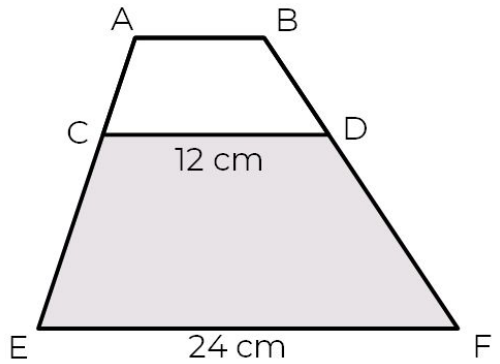


The smaller box has a surface area of 6600 cm^2

Alex says that the larger box will have twice the surface area 13,200 cm^2.

Show that Alex is wrong.

5.



Trapezium ABCD has an area of 27 cm^2

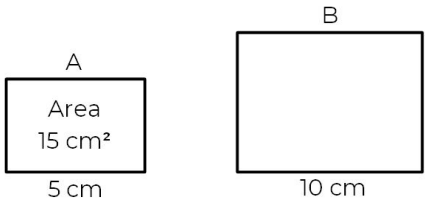
Work out the area of trapezium CEFD.

Answers

Find areas of similar shapes given corresponding lengths

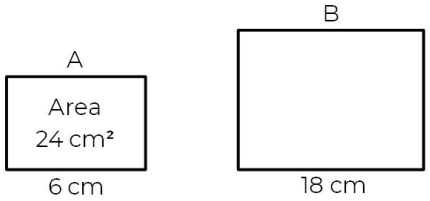
1. Rectangles A and B are similar in each part.

a) Calculate the area of shape B.



60 cm^2

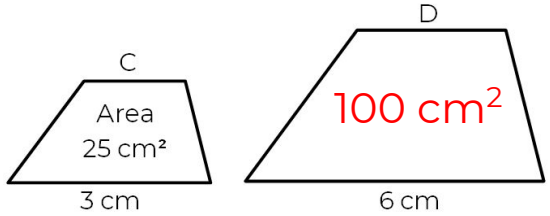
b) Calculate the area of shape B.



216 cm^2

2. Shape D is similar to shape C.

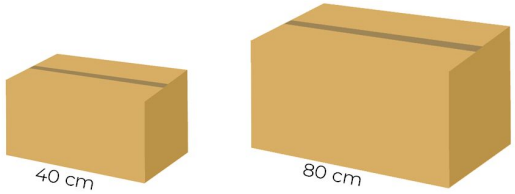
Work out the area of shape D.



3. Two similar triangles have heights of 5 cm and 15 cm. The area of the smaller triangle is 10 cm^2. Calculate the area of the larger triangle. 90 cm^2

Find areas of similar shapes given corresponding lengths

4. Two boxes are mathematically similar.



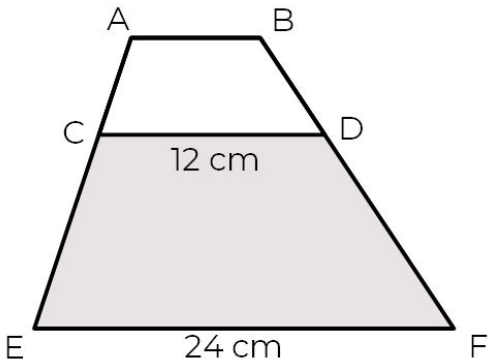
The smaller box has a surface area of 6600 cm^2

Alex says that the larger box will have twice the surface area 13,200 cm^2.

Show that Alex is wrong.

Length SF = 2 6600 x 2^2 = 26,400 cm^2

5.



Trapezium ABCD has an area of 27 cm^2

Work out the area of trapezium CEFD.

108 cm^2