

Mathematics

Area of similar shapes

Lesson 8 of 8

Downloadable Resource

Miss Kidd-Rossiter



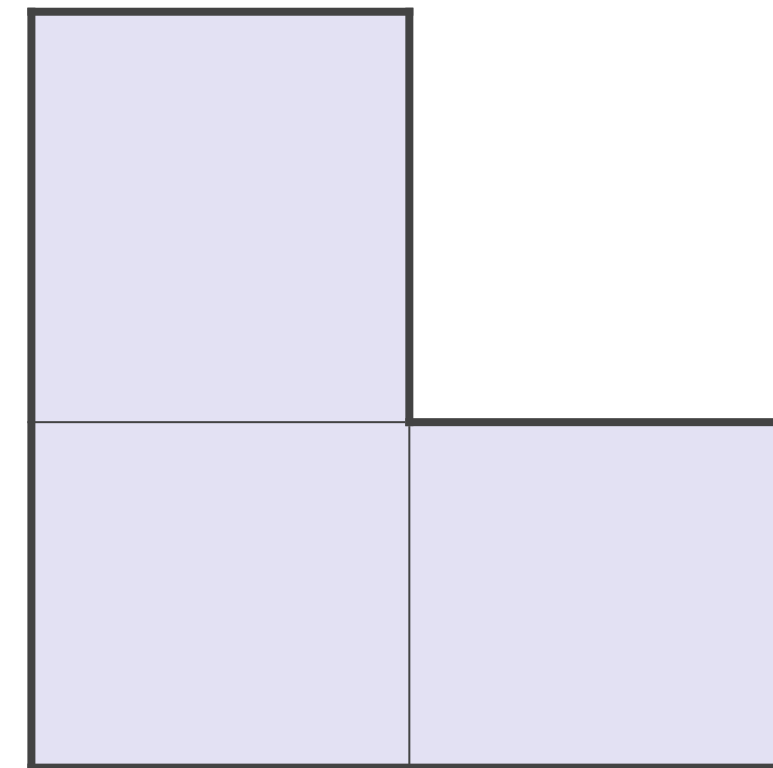
Try this

Enlarge the shape by scale factor 2

Enlarge the shape by scale factor 3

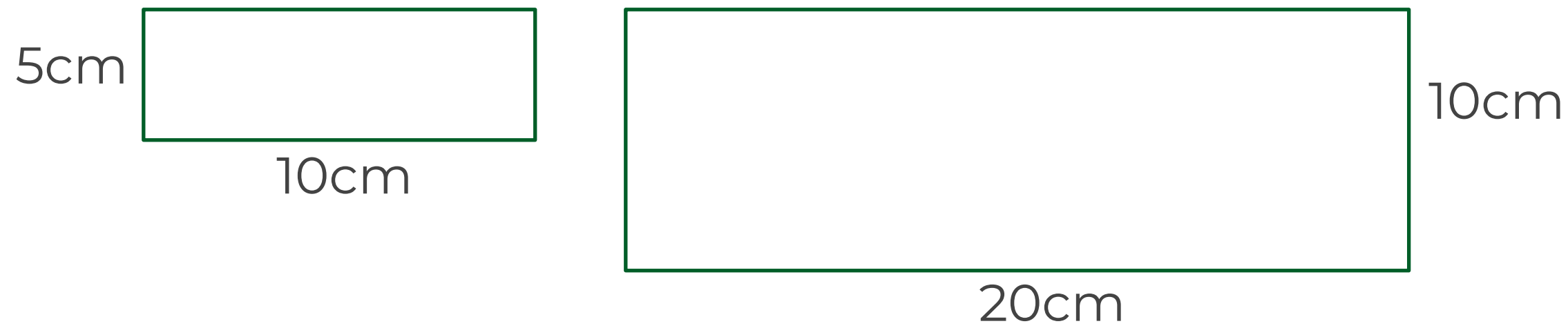
Enlarge the shape by scale factor 2.5

What happens to the area?



Connect

These shapes are similar.



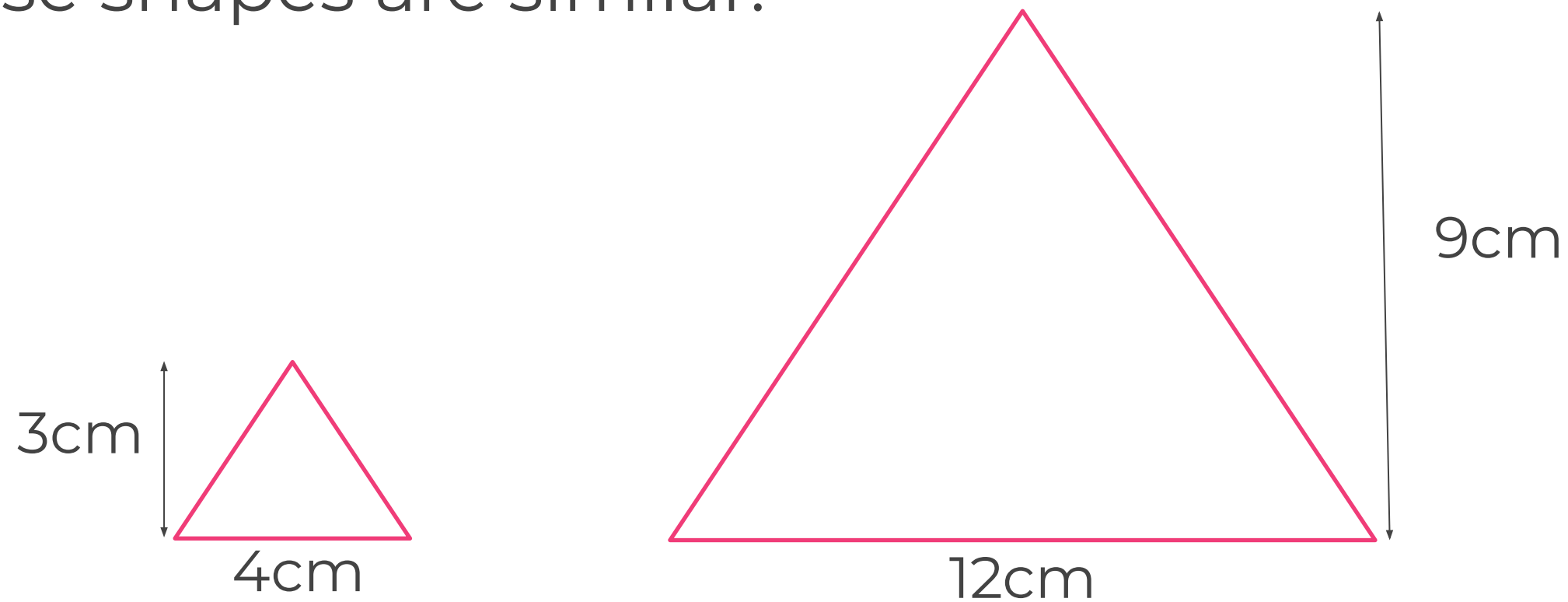
What is the scale factor of enlargement?

Work out the areas. What do you notice?



Connect

These shapes are similar.



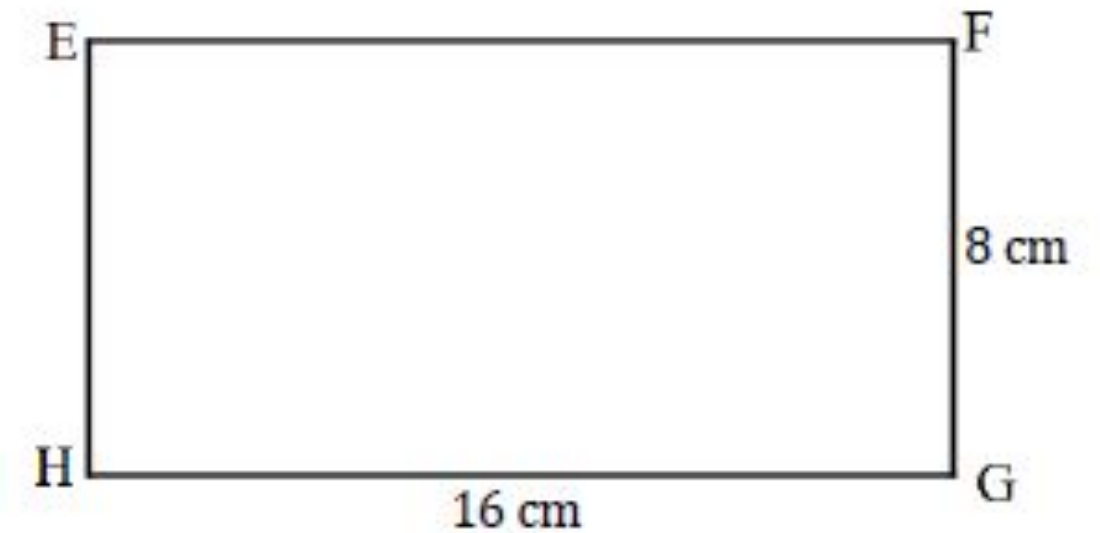
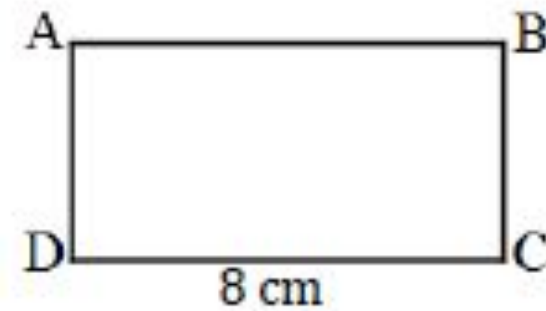
What is the scale factor of enlargement?

Work out the areas. What do you notice?



Independent task

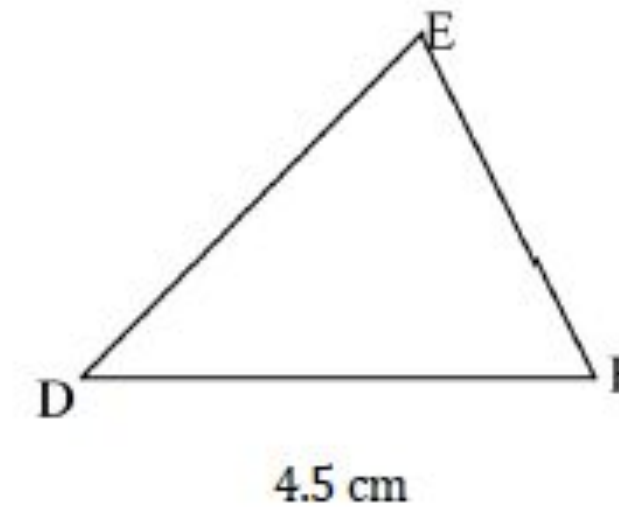
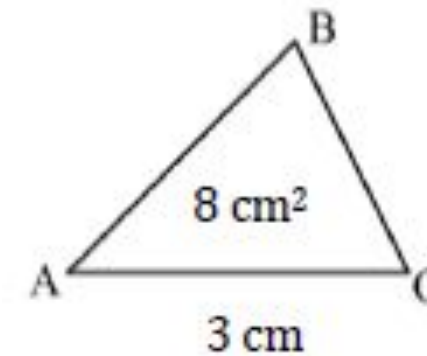
1. Rectangle ABCD is similar to rectangle EFGH.
 - a. Calculate the length of BC.
 - b. Calculate the area of both rectangles.
 - c. What is the scale factor between the **areas** of ABCD and EFGH?



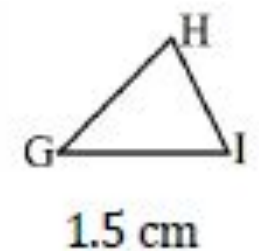
Independent task

2. Triangle ABC is similar to triangle DEF and triangle GHI.

- What is the scale factor that AC is multiplied by to give DF?
- What is the scale factor that the **area** of ABC is multiplied by to give the **area** of DEF?
- What are the areas of DEF and GHI?

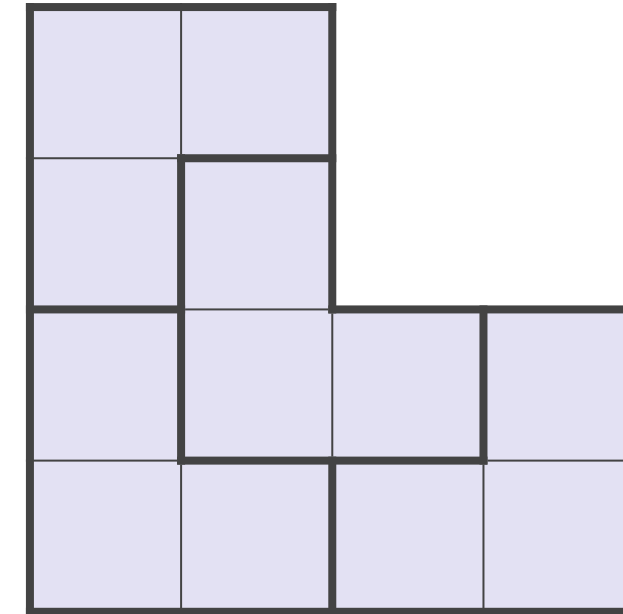
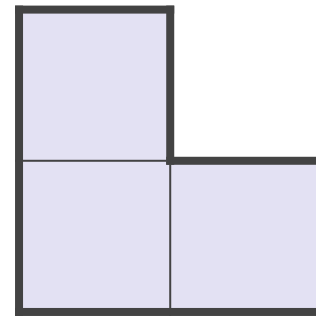


Not drawn to scale



Explore

Copies of shapes



Are the shapes similar? What is the relationship between the area?

Can you use 9 copies of the shape?

Can you use 16 copies of the shape?

Draw your own shape.

