

LO: To be able to use scale factors (bronze) - answers

1a. Enlarge this shape by a scale factor of 3.

3cm 5cm

9cm 15cm

Not to scale

1b. This shape has been enlarged by a scale factor of 3. Find the perimeter of the original shape.

12cm 6cm

P = 12cm

Not to scale

2a. Rebecca says,

A scale factor of two means you multiply each side of the original shape by two.

Is she correct?

Yes, because...

2b. Laurie says,

If I enlarge the shape by a scale factor of 3, the new perimeter will be 54cm.

7cm 2cm

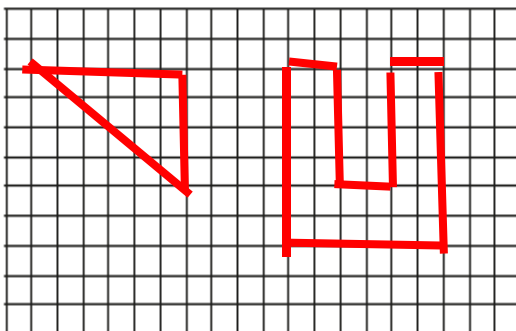
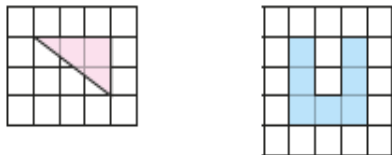
Is he correct? Explain your answer.

Yes, $21\text{cm} + 6\text{cm} + 21\text{cm} + 6\text{cm} = 54\text{cm}$

3. a) Explain what it means for a shape to be enlarged by a scale factor of 2

You multiply all the sides of the shape by 2.

b) Enlarge the shapes by a scale factor of 2

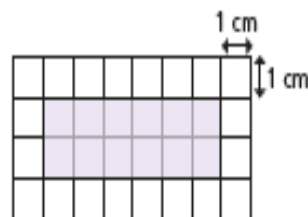


4. Complete the sentence.

A shape in which each side has tripled in size has been enlarged by a scale factor of 3

5.

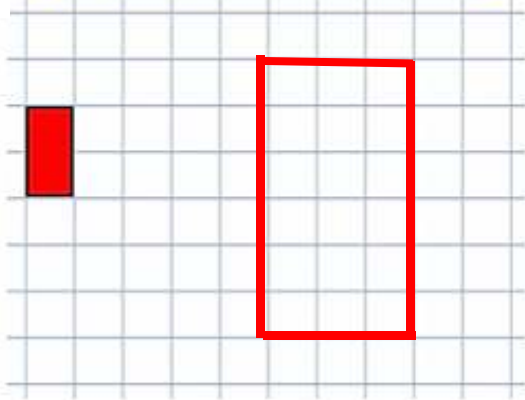
The sides of the rectangle are increased by a scale factor of 2
What is the perimeter of the new shape?



32 cm

LO: To be able to use scale factors (silver) - answers

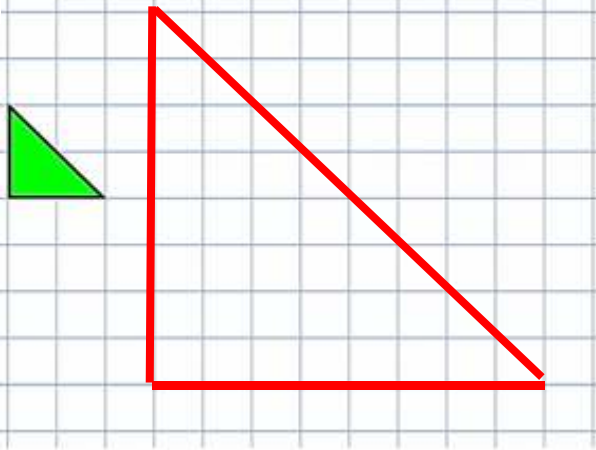
1. Enlarge by a scale factor of 3



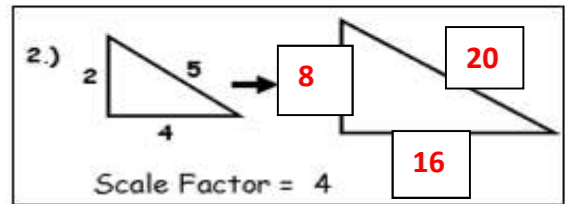
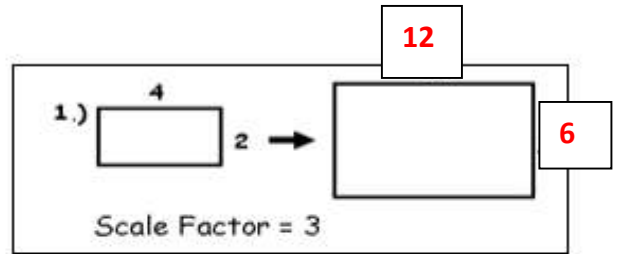
2. Enlarge by a scale factor of 2



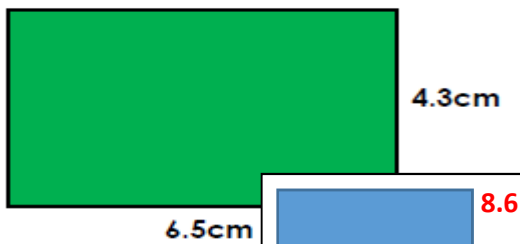
3. Enlarge by a scale factor of 4



4. Fill in the measurements for the scale factor given.



5a. Enlarge this shape by a scale factor of 2.

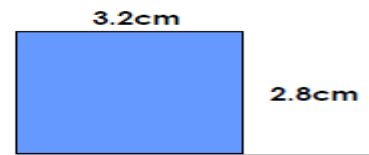


Not to scale

5b. Ciara says,



If I enlarge the shape by a scale factor of 4, the new perimeter would be 60cm.



Is she correct?



No, $12.8+11.2+12.8+11.2=48$

6a. Jake says,



A scale factor of 3.5 means you multiply each side of the original shape by 3.5.

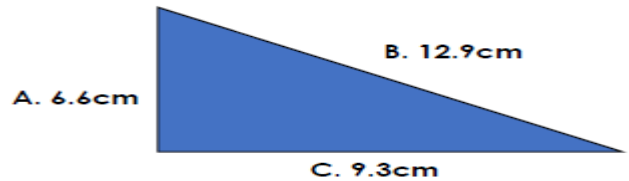
Is he correct?



Yes

VF

6b. This triangle was enlarged by a scale factor of three.



What were the measurements of the original triangle?

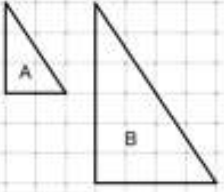
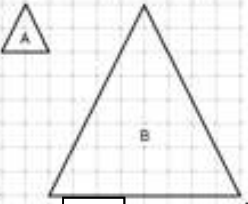


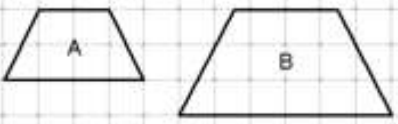
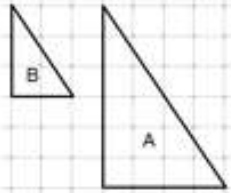
Not to scale

4.3, 3.1, 2.2

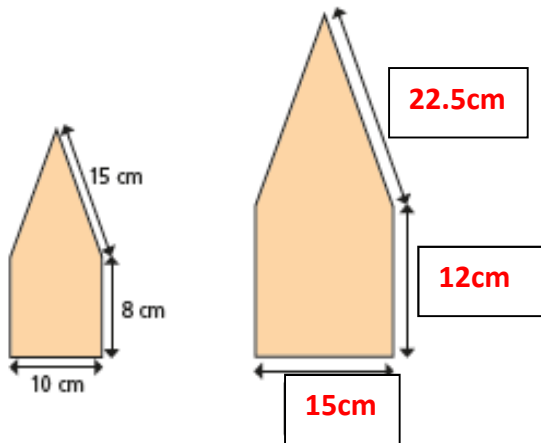
LO: To be able to use scale factors (gold)-answers

Find the scale factor of enlargement from A to B in each diagram below:

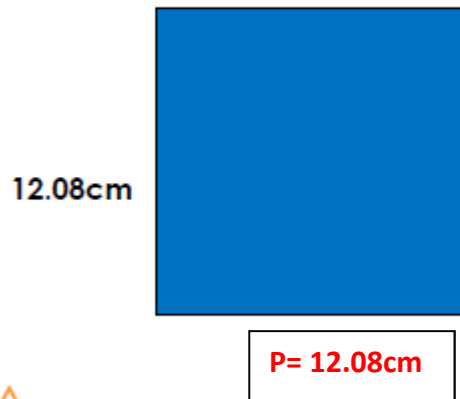
1.	
Answer	2
2.	
Answer	4

3.	
Answer	1.5
4.	
Answer	2

5 The shape has been enlarged by a scale factor of $1\frac{1}{2}$
Fill in the dimensions of the new shape.



7a. This square has been enlarged by a scale factor of 4. Find the perimeter of the original shape.



Not to scale

PS

8a. Ashleigh says,



If I enlarge the shape by a scale factor of 3.5, the new area will be 112.7cm^2 .

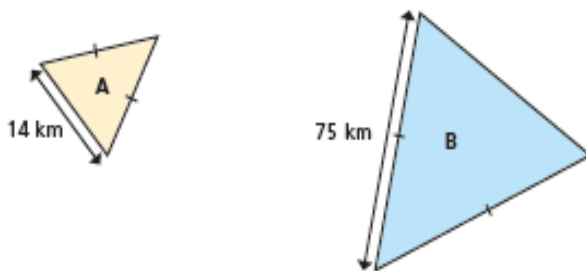


Is she correct? Explain your answer.

Yes - $16.1 \times 7 = 112.7\text{cm}^2$

R

6. Triangle A has been enlarged by a scale factor of 5 to make triangle B.
Find the perimeter of each triangle.



perimeter of A = **44cm** perimeter of B = **220cm**