

Year 6

Wednesday 8th July 2020

Maths

LO: Scale Factors



**The video of this lesson is available here – Summer
Term – Week 10 - lesson 3**

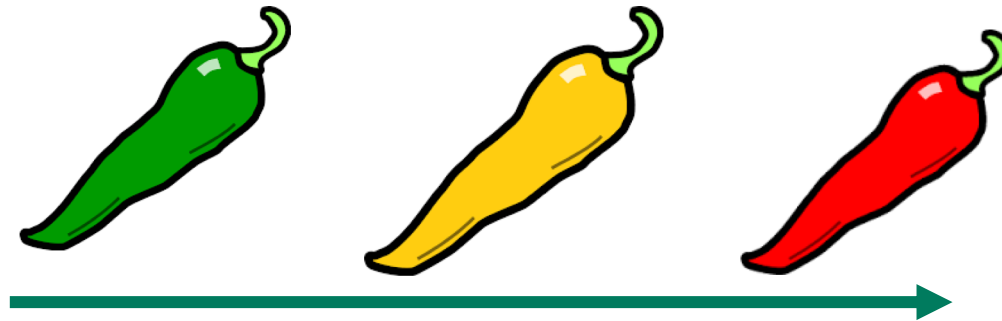
**This link works on the printable version and is
available above the PowerPoint.**

**You will need to watch this video to learn the
skills you need in this lesson.**



The independent work continues on the next two slides. There are 6 questions and 1 extension.

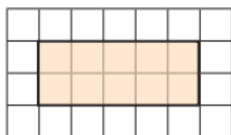
(Español - seis preguntas y una extensión)



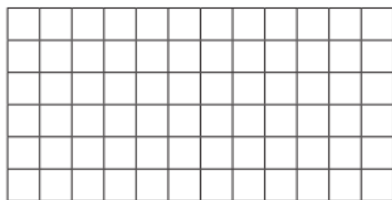
*The chili suggests a good starting point depending on how confident you are feeling.
If you have time you can complete all the independent work!*

Using scale factors

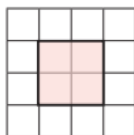
1 a) Here is a rectangle.



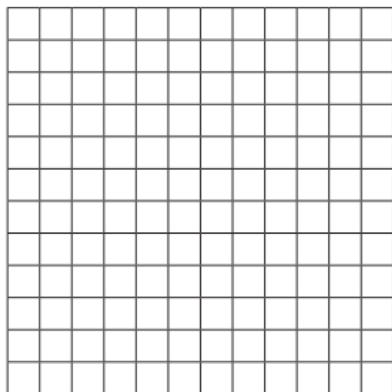
Draw another rectangle where each side is twice as big.



b) Here is a square.



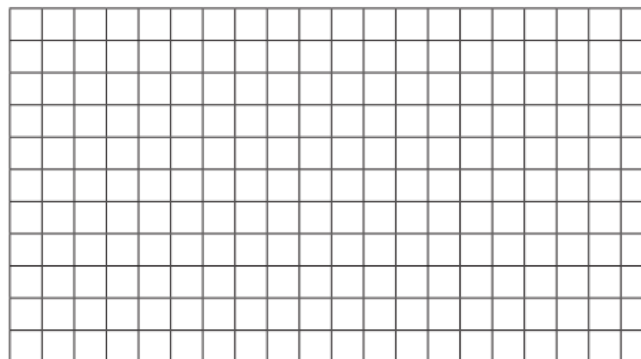
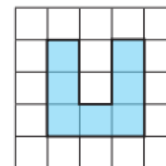
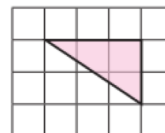
Draw another square where each side is 4 times as big.



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



b) Enlarge the shapes by a scale factor of 2



3 Complete the sentence.

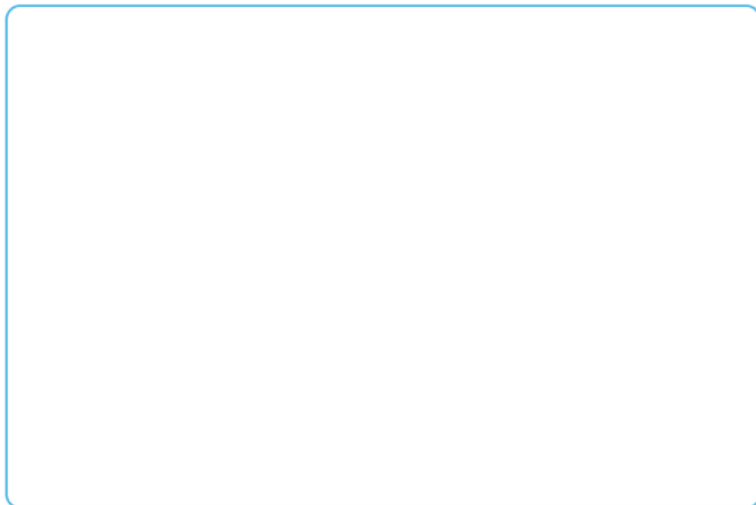
A shape in which each side has tripled in size has been enlarged by a scale factor of



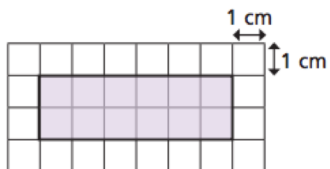
4 Here is a rectangle.



- a) Measure the side lengths of the rectangle and label them on the diagram.
- b) Enlarge the rectangle by a scale factor of 3 and label the side lengths.



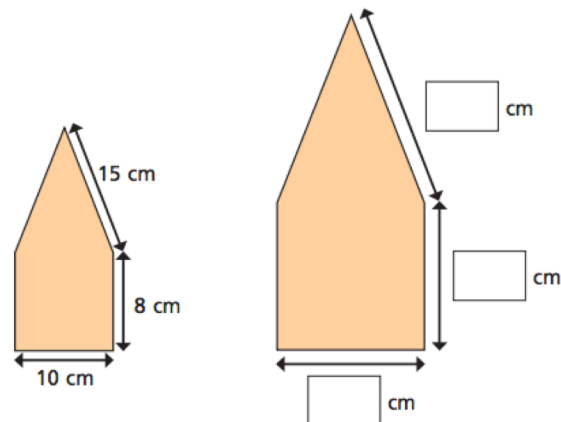
5 The sides of the rectangle are increased by a scale factor of 2
What is the perimeter of the new shape?



cm



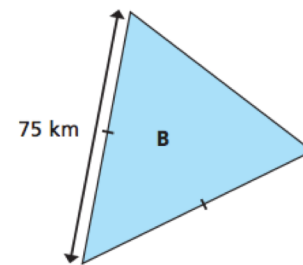
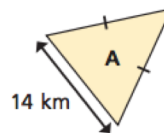
6 The shape has been enlarged by a scale factor of $1\frac{1}{2}$
Fill in the dimensions of the new shape.



Ext:

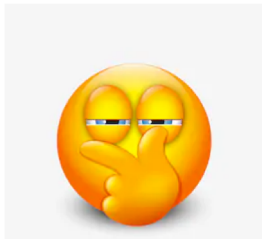
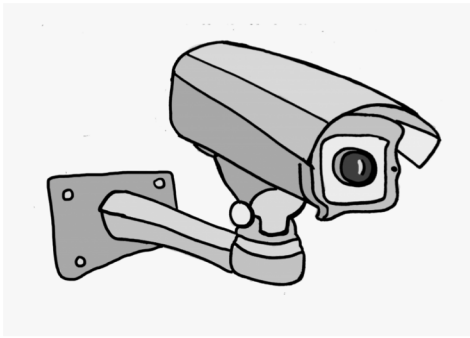
Triangle A has been enlarged by a scale factor of 5 to make triangle B.

Find the perimeter of each triangle.

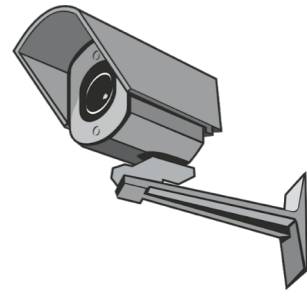
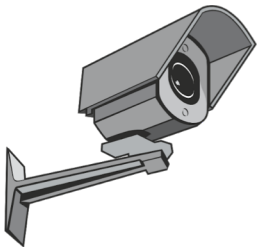


perimeter of A = perimeter of B =



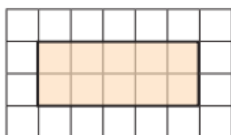


The next two slides contain the answers should you wish to check you work and reflect on what you understand.

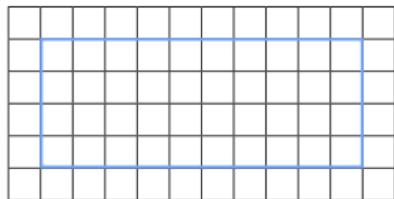


Using scale factors

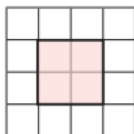
1 a) Here is a rectangle.



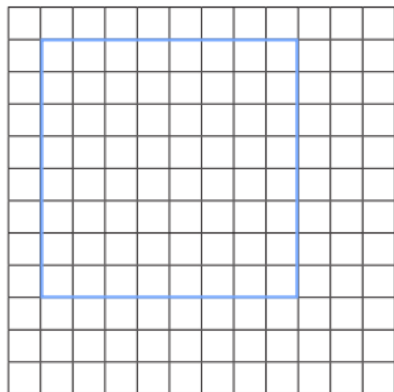
Draw another rectangle where each side is twice as big.



b) Here is a square.



Draw another square where each side is 4 times as big.

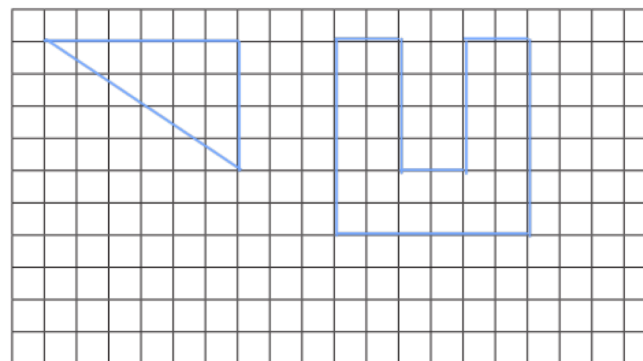
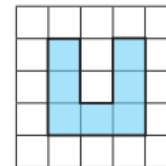
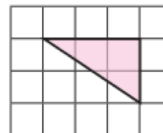


2 a) Explain what it means for a shape to be enlarged by a scale factor of 2



All of the side lengths are twice as big.

b) Enlarge the shapes by a scale factor of 2



3 Complete the sentence.



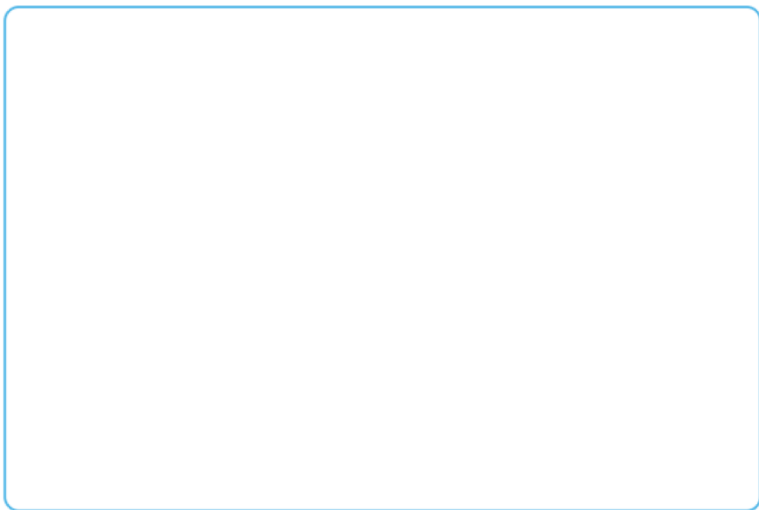
A shape in which each side has tripled in size has been enlarged by a scale factor of 3



4 Here is a rectangle.

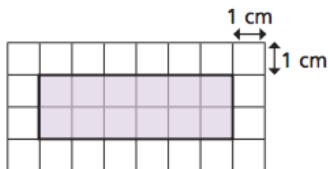


- a) Measure the side lengths of the rectangle and label them on the diagram.
- b) Enlarge the rectangle by a scale factor of 3 and label the side lengths.



5 The sides of the rectangle are increased by a scale factor of 2

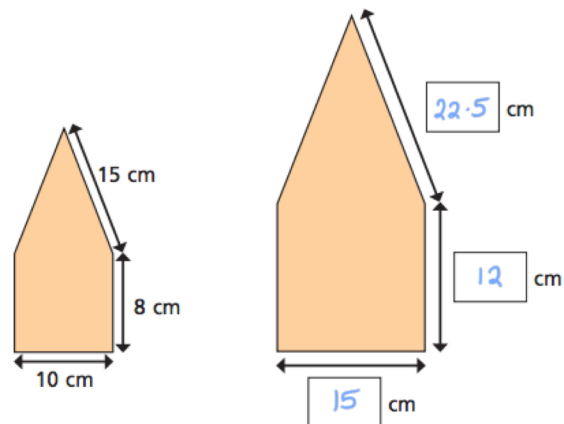
What is the perimeter of the new shape?



32 cm

6 The shape has been enlarged by a scale factor of $1\frac{1}{2}$

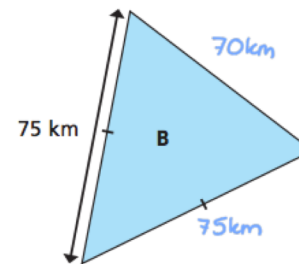
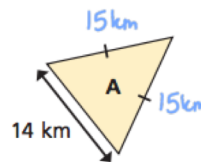
Fill in the dimensions of the new shape.



Ext:

Triangle A has been enlarged by a scale factor of 5 to make triangle B.

Find the perimeter of each triangle.



perimeter of A = 44 km perimeter of B = 220 km

