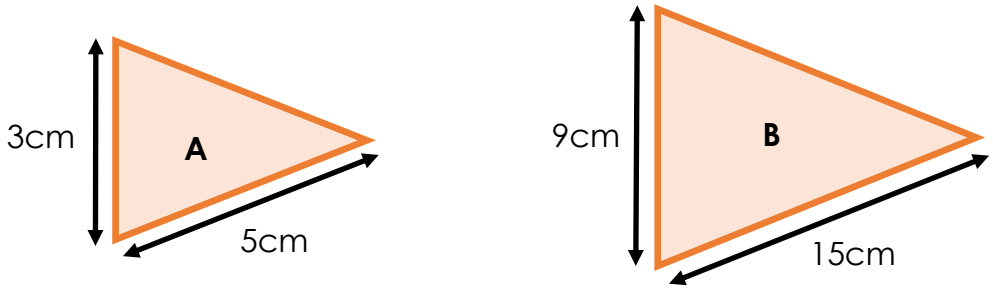
YR6 PROGRESSION IN MASTERY LESSON PACK - CALCULATING SCALE FACTORS

FLUENCY 1

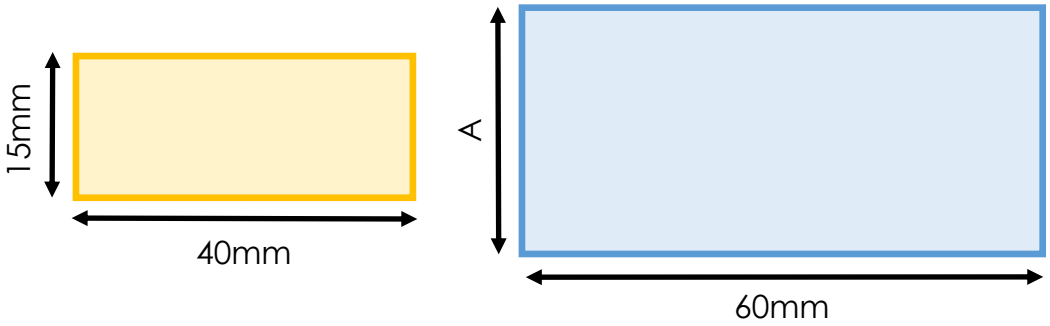


Triangle B is _____ times as large as Triangle A.

Triangle B has been enlarged by a scale factor of _____.

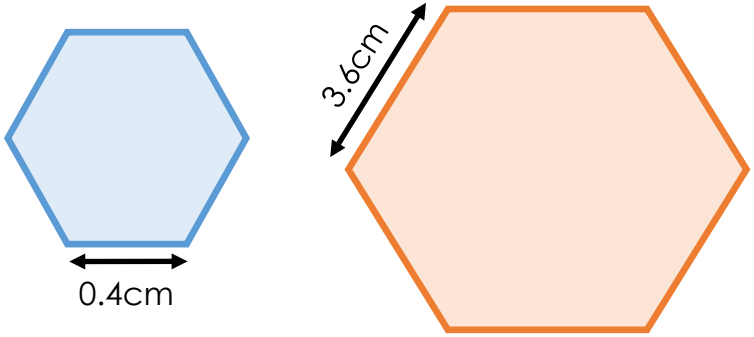
FLUENCY 2

The blue rectangle has been enlarged by a scale factor of _____. Find the missing length A.



FLUENCY 3

Work out the enlargement from the blue regular hexagon to the orange regular hexagon.



FLUENCY 4

Fill in the gaps below using the given numbers to help you

	Side length	New length	Scale Factor
Shape 1		42cm	7
Shape 2	3mm	39mm	
Shape 3	18inch		9

FLUENCY TASKS

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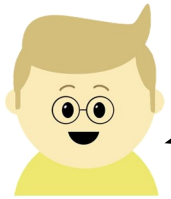
REASONING 1

A rectangle has sides of 0.4m and 0.65m.

Its enlarged rectangle has sides of 160cm and 230cm.

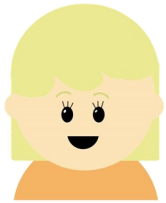


I cannot find the scale factor as the units of measure of different.

Is Alfie correct?
Explain your reasoning.

REASONING 2

Do you agree or disagree with Jane?



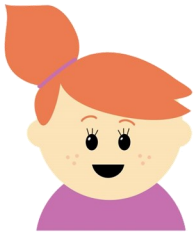
You can use your knowledge of ratio to calculate scale factor

Using examples, show why you agree or disagree!

REASONING 3

A square has been enlarged.

Use Millie's clues below to work out the scale factor from Square A to Square B.

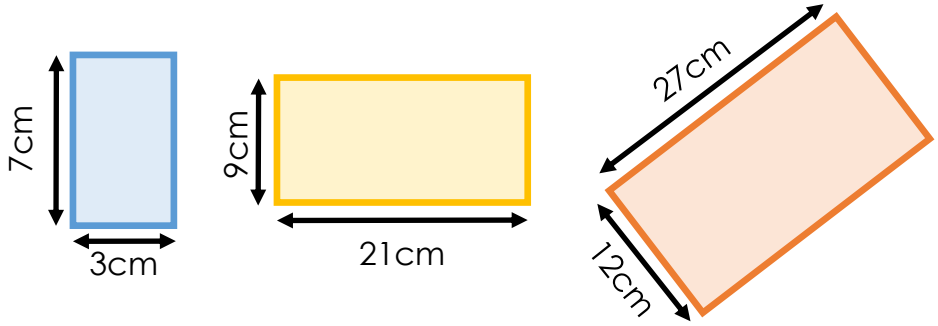


Clue One: Square A has an area of 16cm^2.

Clue Two: Square B has a side length of 16cm.

REASONING 4

All these shapes are an enlargement of each other.

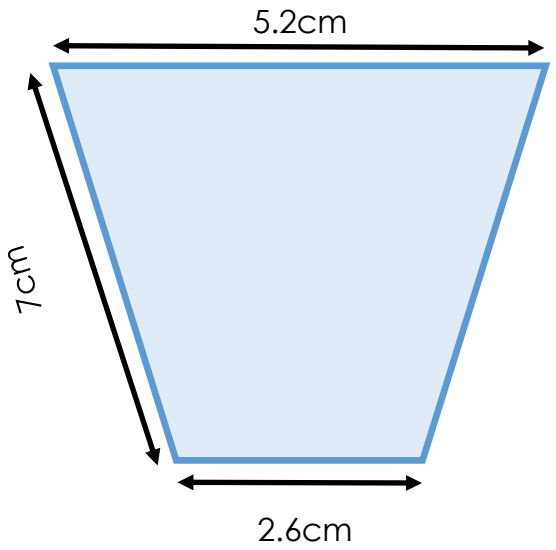


Do you agree? Explain why!

REASONING TASKS

PROBLEM SOLVING 1

Here is a trapezium...



What scale factor will give the first whole number perimeter?

Is there a scale factor that will give an odd perimeter?