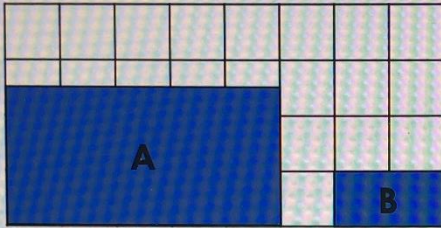


Calculating Scale Factors

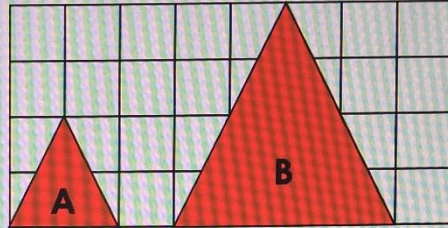
5a. True or false? Shape B has been increased by a scale factor of 2.5 to create shape A.



VF

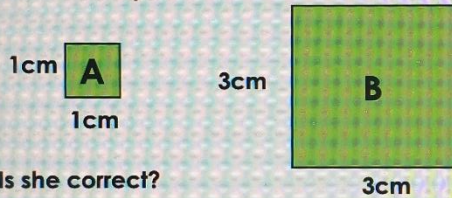
Calculating Scale Factors

5b. True or false? Shape A has been increased by a scale factor of 3 to create shape B.



VF

6a. Evelyn says she has enlarged her shape by a scale factor of 2.5. Shape B is her new shape.



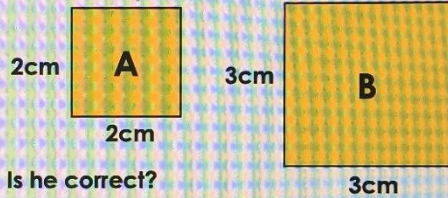
Is she correct?



Not to scale

VF

6b. Dominic says he has enlarged his shape by a scale factor of 1.5. Shape B is his new shape.



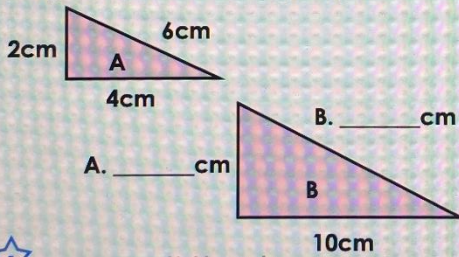
Is he correct?



Not to scale

VF

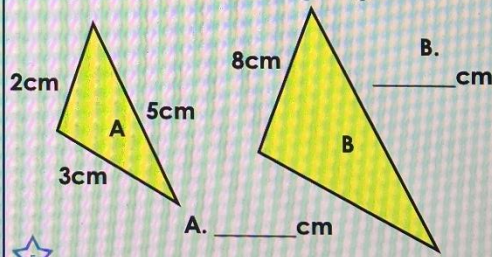
7a. Triangle B has been scaled from triangle A. Find the missing lengths.



Not to scale

VF

7b. Triangle B has been scaled from triangle A. Find the missing lengths.



Not to scale

VF

8a. Square B and C have been scaled from square A. Complete the table.

Square	Length of side	Scale Factor
A	6cm	-
B	?	2.5
C	27cm	?



VF

8b. Square B and C have been scaled from square A. Complete the table.

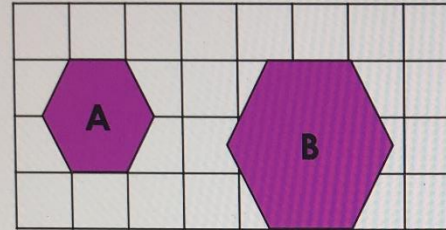
Square	Length of side	Scale Factor
A	8cm	-
B	?	3.5
C	52cm	?



VF

Calculating Scale Factors

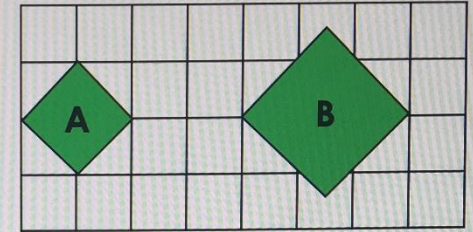
9a. True or false? Shape A has been increased by a scale factor of 2 to create shape B.



VF

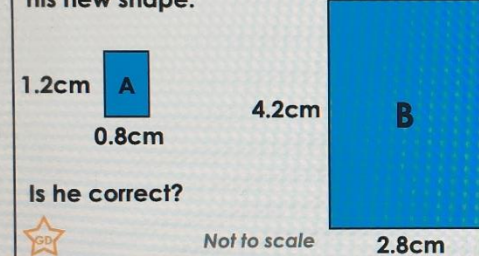
Calculating Scale Factors

9b. True or false? Shape A has been increased by a scale factor of 1.5 to create shape B.



VF

10a. Ashton says he has enlarged his shape by a scale factor of 3.5. Shape B is his new shape.



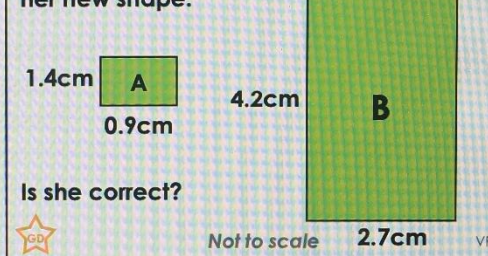
Is he correct?



Not to scale

VF

10b. Tahani says she has enlarged her shape by a scale factor of 2.5. Shape B is her new shape.



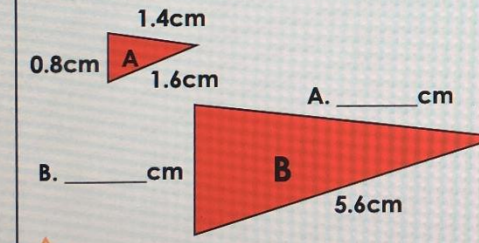
Is she correct?



Not to scale

VF

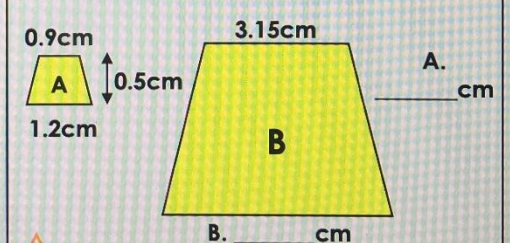
11a. Shape B has been scaled from shape A. Find the missing lengths.



Not to scale

VF

11b. Shape B has been scaled from shape A. Find the missing measurements.



Not to scale

VF

12a. Square B and C have been scaled from square A. Complete the table.

Square	Length of side	Scale Factor
A	6.5cm	-
B	?	2.5
C	19.5cm	?



VF

12b. Square B and C have been scaled from square A. Complete the table.

Square	Length of side	Scale Factor
A	3.5cm	-
B	?	3.5
C	17.5cm	?



VF

Calculating Scale Factors

4a. A rectangle has been enlarged to create shape B. Using the clues below, identify which scale factor has been used.

Shape B has an area of 54cm^2 .

The length of the original rectangle is 6cm .

The perimeter of the original rectangle is 20cm .



PS

Calculating Scale Factors

4b. A rectangle has been enlarged to create shape B. Using the clues below, identify which scale factor has been used.

Shape B has an area of 50cm^2 .

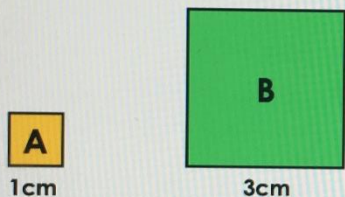
The length of the original rectangle is 4cm .

The perimeter of the original rectangle is 12cm .



PS

5a. Eleanor has enlarged shape A to create shape B. She says if she created shape C using the same scale factor, one side would have a length of 5cm .



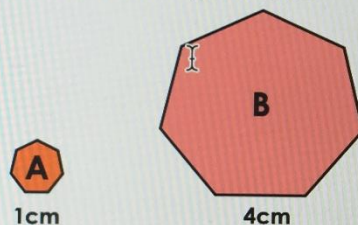
Do you agree? Explain your answer.



Not to scale

R

5b. Bobby has enlarged shape A to create shape B. He says if he created shape C using the same scale factor, one side would have a length of 8cm .



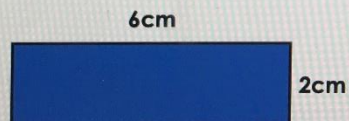
Do you agree? Explain your answer.



Not to scale

PS

6a. When enlarged, the perimeter of the shape below increases to 24cm .



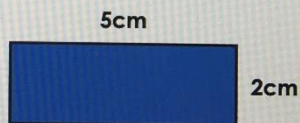
What scale factor has the shape been increased by? Explain your answer.



Not to scale

R

6b. When enlarged, the perimeter of the shape below increases to 49cm .



What scale factor has the shape been increased by? Explain your answer.



Not to scale

R

Calculating Scale Factors

7a. A square has been enlarged to create shape B. Using the clues below, identify which scale factor has been used.

The area of the original square is 6.25cm^2 .

The perimeter of shape B is 25cm .



PS

Calculating Scale Factors

7b. A square has been enlarged to create shape B. Using the clues below, identify which scale factor has been used.

The perimeter of the original square is 7.2cm .

The area of shape B is 7.29cm^2 .



PS

8a. Jonny has enlarged shape A to create shape B. He says if he created shape C using the same scale factor, one side would have a length of 6cm .



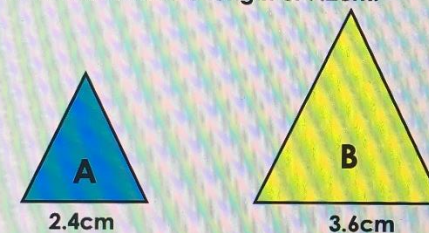
Do you agree? Explain your answer.



Not to scale

R

8b. Amanda has enlarged shape A to create shape B. She says if she created shape C using the same scale factor, one side would have a length of 7.2cm .



Do you agree? Explain your answer.



Not to scale

PS

9a. One side of this square is 2.2cm . When enlarged, the perimeter increases to 66cm .



What scale factor has the shape been increased by? Explain your answer.



Not to scale

R

9b. One side of this square is 4.2cm . When enlarged, the perimeter increases to 42cm .



What scale factor has the shape been increased by? Explain your answer.



Not to scale

R

Ratio and Proportion Problems

Ratio and Proportion Problems

5a. Shape A has been enlarged by different scale factors to make shapes B, C and D.

Shape	Length	Width
A	3cm	4cm
B		12cm
C	15cm	
D	30cm	

Calculate the missing measurements.



VF

5b. Shape A has been reduced by different scale factors to make shapes B, C and D.

Shape	Length	Width
A	12cm	24cm
B		6cm
C	6cm	
D	2cm	

Calculate the missing measurements.



VF

6a. True or false?

I need 50g of flour for every 10g of sugar.

If I have 600g of ingredients, I will have 500g of flour.



VF

6b. True or false?

I need 25g of flour for every 30g of sugar.

If I have 275g of ingredients, I will have 100g of flour.



VF

7a. The ratio of strawberries to grapes is 3:2.

Pippa has 25 pieces of fruit in total.

Calculate the number of strawberries and grapes.



VF

7b. The ratio of peas to carrots is 5:4.

Leah has 108 vegetables in total.

Calculate the number of peas and carrots.



VF

8a. Jake is buying some paint.

The ratio of white to blue to green paint is 20:50:100.

If he buys 200 litres of blue paint, how much white and green paint will he need?



VF

8b. Jaiden is buying some paint

The ratio of white to blue to green paint is 5:7:8.

If he buys 64 litres of green paint, how much white and blue paint will he need?



VF

Ratio and Proportion Problems

Ratio and Proportion Problems

9a. Shape A has been enlarged by different scale factors to make shapes B, C and D.

Shape	Length	Height	Width
A	10.5cm	7cm	2.5cm
B	26.25cm		
C		49cm	
D	94.5cm		22.5cm

Calculate the missing measurements.



VF

9b. Shape A has been reduced by different scale factors to make shapes B, C and D.

Shape	Length	Height	Width
A	15cm	25cm	18cm
B	1.5cm		
C			3.6cm
D	7.5cm		

Calculate the missing measurements.



VF

10a. True or false?

I need 0.5m of ribbon for every 2m of blue and 3m of green fabric.

If I have 11m of supplies, I will have 7.5m of green fabric.



VF

10b. True or false?

I need 2.5m of ribbon for every 9m of pink and 11m of purple fabric.

If I have 11.25m of supplies, I will have 5m of pink fabric.



VF

11a. The ratio of cupcakes to donuts and cookies is 6:1:7

Sarah has 70 treats in total.

Calculate the number of cupcakes, donut and cookies.



VF

11b. The ratio of cupcakes to donuts and cookies is 5:3:2.

Jacob has 90 treats in total.

Calculate the number of cupcakes, donut and cookies.



VF

12a. Omar is buying baking ingredients.

The ratio of flour to sugar to butter is 125:150:90.

If he buys 750g of flour, how much sugar and butter will he need?



VF

12b. Toby is buying baking ingredients.

The ratio of flour to sugar to butter is 95:110:75.

If he buys 770g of sugar, how much flour and butter will he need?



VF