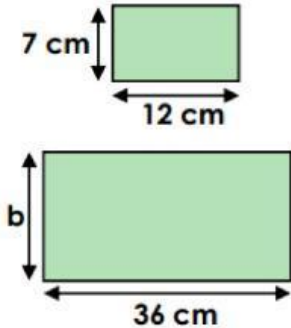


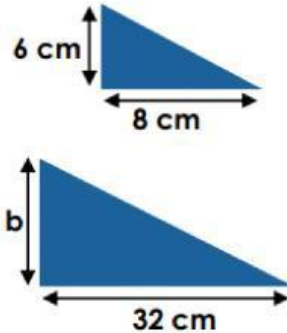
# Ratio and Proportion

## Similar Shapes

3a. Tick the correct length of side b in the similar shapes below.



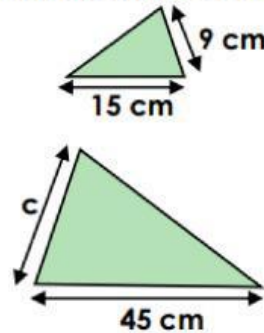
- |           |                          |
|-----------|--------------------------|
| b = 14 cm | <input type="checkbox"/> |
| b = 21 cm | <input type="checkbox"/> |
| b = 28 cm | <input type="checkbox"/> |



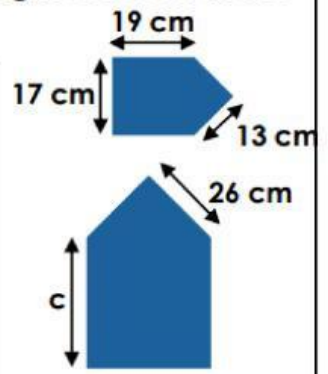
- |           |                          |
|-----------|--------------------------|
| b = 24 cm | <input type="checkbox"/> |
| b = 28 cm | <input type="checkbox"/> |
| b = 30 cm | <input type="checkbox"/> |

VF

3b. Tick the correct length of side C in the similar shapes below.



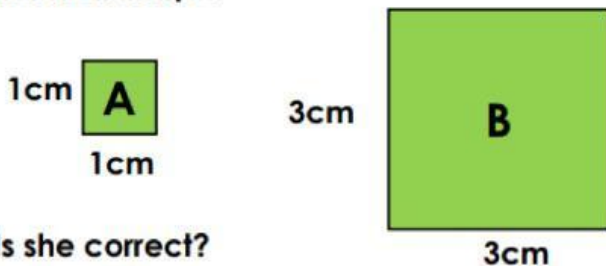
- |           |                          |
|-----------|--------------------------|
| c = 39 cm | <input type="checkbox"/> |
| c = 36 cm | <input type="checkbox"/> |
| c = 27 cm | <input type="checkbox"/> |



- |           |                          |
|-----------|--------------------------|
| c = 34 cm | <input type="checkbox"/> |
| c = 38 cm | <input type="checkbox"/> |
| c = 39 cm | <input type="checkbox"/> |

VF

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



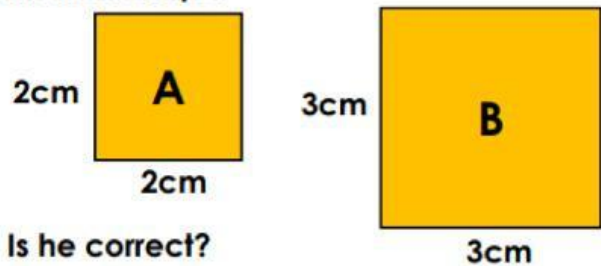
Is she correct?



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.



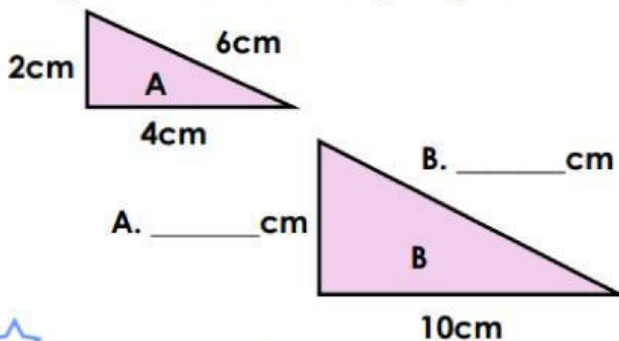
Is he correct?



Not to scale

VF

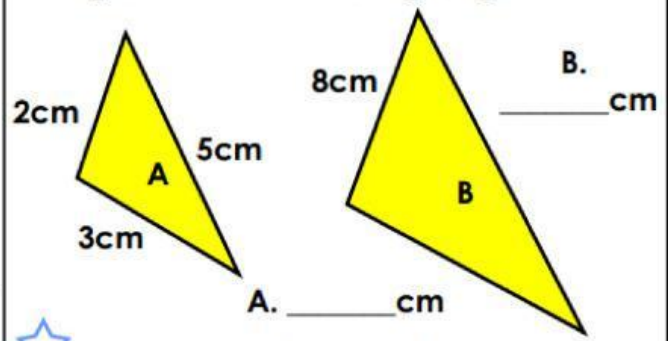
7a. Triangle B has been scaled from triangle A. Find the missing lengths.



Not to scale

VF

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



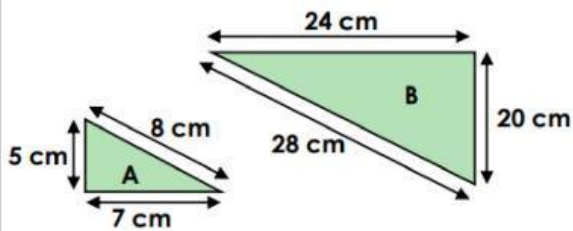
Not to scale

VF

3a. Bonny is discussing the shapes below. She says,



The sides are enlarged by a scale factor of 4. I know because  $5 \text{ cm} \times 4 = 20 \text{ cm}$ . The shapes are similar.

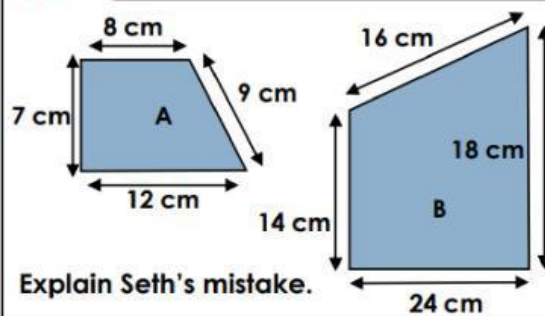


Explain Bonny's mistake.

3b. Seth is discussing the shapes below. He says,

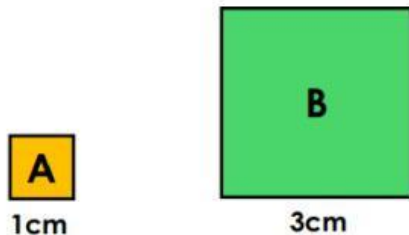


The shapes are similar. Each length has doubled. Shape A has been enlarged by a scale factor of 2.



Explain Seth's mistake.

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.

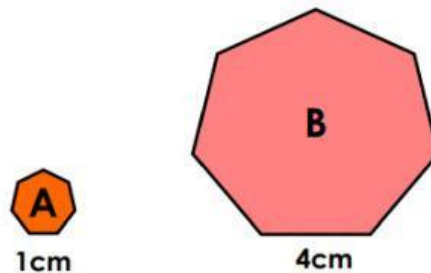


Do you agree? Explain your answer.



Not to scale

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

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

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