

Lesson 7: Similar shapes

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1. a) Yes, they are similar as they have a scale factor of 2. The side of 3 squares has been enlarged to 6 squares ($= 2 \times 3$) and the side of 4 squares has been enlarged to 8 squares ($= 2 \times 4$).
b) No, they are not similar. The lengths have been enlarged but the widths are the same.
2. Answers will vary. Check one triangle is an enlargement of the other.
3. a) The scale factor is 3.
The length of side a is 15 cm.
b) The scale factor is 5.
The length of side b is 8 cm.
4. $x = 2.5$ cm $y = 25$ cm
5. a) 1 : 2
b) Children should have drawn a similar parallelogram on the grid with base length of 12 and perpendicular height of 9. The bottom left vertex of shape should sit three squares to the left of the top left vertex.
c) 18 cm

Reflect

Answers may vary; for example:

All sides in the shapes will be in the ratio 1 : 4 since the shapes are similar. One shape will have lengths 4 times longer than the other shape.