# 5.18 Similar Shapes (Lengths): 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

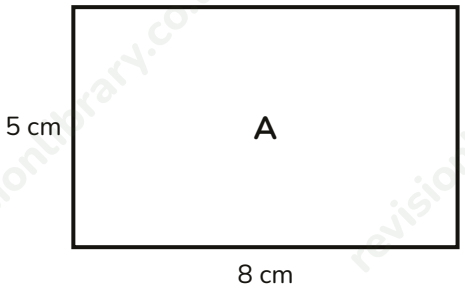
**Answer ALL questions. Show all your working.**

**1** Two similar triangles, triangle A and triangle B, have corresponding sides in the ratio 4:7. One side of triangle A is 10 cm. Work out the length of the corresponding side of triangle B.

**(Total for Question 1 is 2 marks)**

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**2** Rectangle A measures 5 cm by 8 cm.




**(a)** Which of these rectangles is mathematically similar to rectangle A? **(1)**

- ☐ A) 8 cm by 11 cm
- ☐ B) 15 cm by 24 cm
- ☐ C) 10 cm by 14 cm
- ☐ D) 20 cm by 30 cm

**(b)** Write down the scale factor of enlargement from rectangle A to the rectangle you chose in part (a). **(1)**

**(Total for Question 2 is 2 marks)**


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**3** Shape A has a length of 5 cm. The corresponding length on a mathematically similar shape B is 20 cm. Write down the scale factor of enlargement from shape A to shape B.

**(Total for Question 3 is 1 mark)**

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**4** Rectangle C measures 6 cm by 4 cm. Rectangle D is mathematically similar to rectangle C, with a scale factor of enlargement of 2.5. Work out the dimensions of rectangle D.

**(Total for Question 4 is 2 marks)**

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**5** Shape P is similar to shape Q. On shape P a side measures 8 cm and the corresponding side on shape Q measures 12 cm.

**(a)** Find the scale factor from P to Q. **(1)**

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**(b)** A different side on P measures 5 cm. Find the length of the corresponding side on Q. **(1)**

.....

**(Total for Question 5 is 2 marks)**


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# Mark scheme · 5.18 Similar Shapes (Lengths): 10-minute Pack

## Question 1

use 10 x (7/4) or equivalent method **M1**

17.5 cm cao **A1**

**Answer:17.5 cm.**

**Working check: 10 x 7/4 = 70/4 = 17.5.**

## Question 2

(a) B) 15 cm by 24 cm **B1**

**(a) Answer: B**

(b) 3 cao ft their (a) **B1**

**(b) Answer: 3**

## Question 3

4 cao **B1**

**Answer: 4**

## Question 4

6 x 2.5 and 4 x 2.5 oe (both dimensions scaled by 2.5) **M1**

15 cm by 10 cm cao **A1**

**Answer: 15 cm by 10 cm**

## Question 5

(a) scale factor 12/8 = 3/2 or 1.5 cao **B1**

**(a) Answer: 3/2.**

(b) 7.5 cm cao **B1**

**(b) Answer: 7.5 cm.**


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