

1.5.3 Solutions (Homework)

GCSE Mathematics Ratio and Similarity

Answer 1

$$\frac{12}{16} = \frac{3}{4}$$

[1 mark]

Answer 2

$$15 \times \frac{8}{3} = 40 \text{ cm}$$

[1 mark]

Answer 3

(i) $\frac{15}{9} = \frac{5}{3}$

(ii) $21 \times \frac{5}{3} = 35\text{cm}$

[1, 1 marks]

Answer 4

5 cm, 6 cm and 8 cm

[3 marks]

Answer 5

$$10 \times \frac{11}{2} = 55 \text{ cm}$$

$$6 \times \frac{11}{2} = 33 \text{ cm}$$

[2 marks]

Answer 6

$$21 \times \frac{9}{7} = 27 \text{ cm}$$

$$28 \times \frac{9}{7} = 36 \text{ cm}$$

[2 marks]

Answer 7

Rectangle A length $\times$ breadth	Rectangle B length $\times$ breadth	Area A	Area B	lsf B from A	asf B from A
4×8	6×12	32	72	$\frac{3}{2}$	$\frac{9}{4}$
3×9	4×12	27	48	$\frac{4}{3}$	$\frac{16}{9}$
10×20	15×30	200	450	$\frac{3}{2}$	$\frac{9}{4}$
20×20	50×50	400	2500	$\frac{5}{2}$	$\frac{25}{4}$
8×4	10×5	32	50	$\frac{5}{4}$	$\frac{25}{16}$
6×9	8×12	54	96	$\frac{4}{3}$	$\frac{16}{9}$

[9 marks]

Important Result :

$$asf = (lsf)^2$$

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