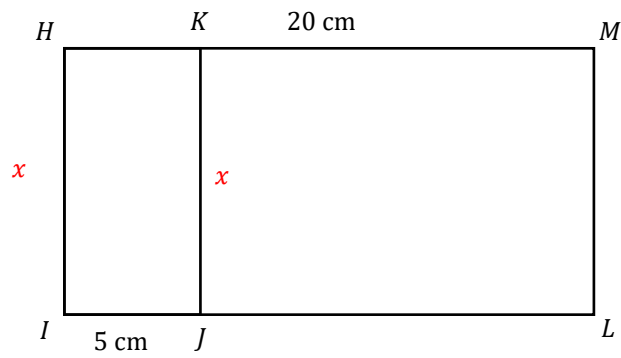


Similar Shapes Mark Scheme

| | | |
|-------------|---|---|
| 1(a) | Similar shapes are enlargements of each other, i.e. they have same angles, but all sides have changed by the same scale factor. | [1] Scale factor used in explanation |
| 1(b) | A and H | [1] Correct pair |
| | F and D | [1] Correct pair |
| | J and K and L | [1] Correct three |
| 2 | A and F | [1] Correct pair |
| | B and E | [1] Correct pair |
| | C and D and H | [1] Correct three |
| 3(a) | $\frac{42}{14} = 3$ | [1] |
| 3(b) | $12 \times 3 = 36$ cm | [1] |
| 3(c) | $51 \div 3 = 17$ cm | [1] |
| 4(a) | $\frac{18}{12} = 1.5$ | [1] |
| 4(b) | $14 \times 1.5 = 21$ cm | [1] |
| 4(c) | $AX : XD = 1 : 1.5$ | [1] Correct ratio |
| | $AX = 10$ cm, $XD = 15$ cm | [1] Correct answers |
| 5(a) | 2 | [1] |
| 5(b) | $x = BE - BC = CE$ $BE = 4.4 \times 2 = 8.8$ | [1] Correct BE |
| | $DE = y = 5 \times 2 = 10$ | [1] Correct DE |
| 6(a) | $\frac{48}{16} = 3$ | [1] |
| 6(b) | $3^2 = 9$ | [1] Scale factor for area |
| | $9 \times 24 = 216$ cm ² | [1] Alternative methods available. 2 marks for correct answer via any method. |

Turn over ►



7

$$\frac{x}{5} = \frac{20}{x}$$

[1] Setting the unknown sides to a letter

$$x^2 = 100 \text{ so } x = 10$$

[1] Calculation of unknown

$$\frac{20}{10} = 2 \therefore \text{scale factor} = 2$$

[1] Proof of answer

END