

Page	Answers
84–85	<p>(1) (a)</p> <p>To convert <b>m</b> to km, we <b>divide</b> by 1000.</p> <p>(b)</p> <p>To convert <b>cm</b> to m, we <b>divide</b> by 100.</p>

	<p>(c)</p> <p>To convert <b>ml</b> to l, we <b>divide</b> by 1000.</p> <p>(d)</p> <p>To convert <b>kg</b> to g, we <b>multiply</b> by 1000.</p> <p>(e)</p> <p>To convert <b>mm</b> to m, we <b>divide</b> by 1000.</p> <p>(f)</p> <p>To convert <b>km</b> to cm, we <b>multiply</b> by 100000.</p>
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- (2) (a) To convert kilograms to grams, we multiply by 1000.

$$\underline{17 \times 1000 = 17\,000}$$

So,  $17 \text{ kg} = \underline{17\,000} \text{ g}$ .

- (b) To convert centimetres to millimetres, we multiply by 10.

$$\underline{128 \times 10 = 1\,280}$$

So,  $128 \text{ cm} = \underline{1\,280} \text{ mm}$ .

- (c) To convert kilometres to metres, we multiply by 1000.

$$\underline{2 \times 1000 = 2\,000}$$

So,  $2 \text{ km} = \underline{2\,000} \text{ m}$ .

- (d) To convert grams to kilograms, we divide by 1000.

$$\underline{3\,000 \div 1\,000 = 3}$$

So,  $3\,000 \text{ g} = \underline{3} \text{ kg}$ .

- (e) To convert litres to millilitres, we multiply by 1000.

$$\underline{5 \times 1\,000 = 5\,000}$$

So,  $5 \text{ l} = \underline{5\,000} \text{ ml}$ .

- (f) To convert millimetres to centimetres, we divide by 10.

$$\underline{700 \div 10 = 70}$$

So,  $700 \text{ mm} = \underline{70} \text{ cm}$ .

- (g) To convert millilitres to litres, we divide by 1000.

$$\underline{9\,000 \div 1\,000 = 9}$$

So,  $9\,000 \text{ ml} = \underline{9} \text{ L}$ .

- (h) To convert metres to kilometres, we divide by 1000.

$$\underline{30\,000 \div 1\,000 = 30}$$

So,  $30\,000 \text{ m} = \underline{30} \text{ km}$ .

Page	Answers															
96	(1)	<table border="1"> <thead> <tr> <th>Millilitres</th> <th>Litres</th> </tr> </thead> <tbody> <tr> <td>700</td> <td>0.7</td> </tr> <tr> <td>2000</td> <td>2</td> </tr> <tr> <td>1800</td> <td>1.8</td> </tr> <tr> <td>3500</td> <td>3.5</td> </tr> <tr> <td>7600</td> <td>7.6</td> </tr> <tr> <td>1250</td> <td>1.25</td> </tr> </tbody> </table>	Millilitres	Litres	700	0.7	2000	2	1800	1.8	3500	3.5	7600	7.6	1250	1.25
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127	(2) (a) acute (b) reflex (c) reflex (d) obtuse (e) right (f) acute (g) obtuse (h) right
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133–134	<p>(2) (a) The sum of the angles in the triangle is <math>180^\circ</math>.  <math>\angle B</math> is a right angle. It is <math>90^\circ</math>.  <math>\angle C = 180^\circ - 90^\circ - 35^\circ</math>  <math>= 90^\circ - 35^\circ</math>  <math>= 55^\circ</math></p> <p>(b) The sum of the angles in the triangle is <math>180^\circ</math>.  <math>\angle Q = 180^\circ - 49^\circ - 18^\circ</math>  <math>= 131^\circ - 18^\circ</math>  <math>= 113^\circ</math></p> <p>(c) The triangle is an isosceles triangle. So, <math>\angle S = \angle T = 78^\circ</math>.  The sum of the angles in the triangle is <math>180^\circ</math>.  <math>\angle R = 180^\circ - 78^\circ - 78^\circ</math>  <math>= 102^\circ - 78^\circ</math>  <math>= 24^\circ</math></p> <p>(3) This triangle is an isosceles triangle.  So, <math>\angle P = \angle Q</math>  The sum of the angles in the triangle is <math>180^\circ</math>.  <math>\angle P + \angle Q + \angle R = 180^\circ</math>  <math>\angle P + \angle Q = 180^\circ - 56^\circ</math>  <math>= 124^\circ</math>  So, <math>\angle P = \angle Q = 124^\circ \div 2 = 62^\circ</math></p>
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**Problem solving**

AB is a straight line. The sum of the angles on a straight line is  $180^\circ$ .

$$\angle ACD + \angle BCD = 180^\circ$$

$$\begin{aligned}\angle BCD &= 180^\circ - 152^\circ \\ &= 28^\circ\end{aligned}$$

ED is a straight line. The sum of the angles on a straight line is  $180^\circ$ .

$$\angle EBC + \angle CBD = 180^\circ$$

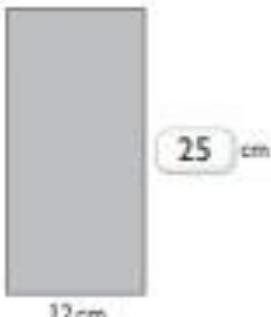
$$\begin{aligned}\angle CBD &= 180^\circ - 60^\circ \\ &= 120^\circ\end{aligned}$$

The sum of the angles in the triangle is  $180^\circ$ .

$$\angle BCD + \angle CBD + \angle CDB = 180^\circ$$

$$\begin{aligned}\angle CDB &= 180^\circ - 28^\circ - 120^\circ \\ &= 152^\circ - 120^\circ \\ &= 32^\circ\end{aligned}$$

(2)



Let the length of the rectangle be  $x$  cm.

$$\text{Perimeter} = 74 \text{ cm}$$

$$\text{Sum of widths} = 24$$

$$\text{So, sum of lengths} = 74 - 24 = 50 \text{ cm}$$

$$2 \times \text{length} = 50 \text{ cm}$$

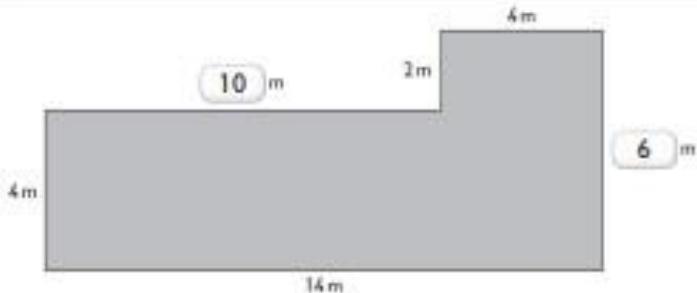
$$\text{Length} = 25 \text{ cm}$$

Page	Answers
196	<p>(1)</p> <p>perimeter = <input type="text" value="42"/> cm</p>

$$\text{Perimeter of rectangle} = 9 + 12 + 9 + 12 \\ = 42 \text{ cm}$$

Page	Answers
202	<p>(1)</p> <p>perimeter = <input type="text" value="4"/> cm + <input type="text" value="11"/> cm + <input type="text" value="2"/> cm + <input type="text" value="8"/> cm + <input type="text" value="2"/> cm + <input type="text" value="3"/> cm = <input type="text" value="30"/> cm</p>

(2)



$$\begin{aligned}\text{Perimeter} &= 4\text{ m} + 10\text{ m} + 2\text{ m} + 4\text{ m} + 6\text{ m} + 14\text{ m} \\ &= 40\text{ m}\end{aligned}$$

perimeter = 40 m

- 203 (3) (a) Find the length of side A. Show your working in the space below.

$$\text{Length of side A} = 8\text{ cm} + 4.5\text{ cm} - 2.5\text{ cm} = 10\text{ cm}$$

10 cm

- (b) Find the length of side B. Show your working in the space below.

$$\text{Length of side B} = 8.5\text{ cm} + 4.5\text{ cm} - 3.5\text{ cm} = 9.5\text{ cm}$$

9.5 cm

- (c) Find the perimeter of the shape. Show your working in the space below.

$$\begin{aligned}\text{Perimeter} &= 8\text{ cm} + 8.5\text{ cm} + 4.5\text{ cm} + 4.5\text{ cm} + 10\text{ cm} \\ &\quad + 9.5\text{ cm} + 2.5\text{ cm} + 3.5\text{ cm} = 51\text{ cm}\end{aligned}$$

51 cm

Page	Answers
205	<p>(1) (a) Find the length of side A.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <math>4 + 2 = 6</math> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; text-align: right;"> <span style="border: 1px solid black; padding: 2px;">6</span> m     </div> <p>(b) Find the length of side B.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <math>6 + 8 = 14</math> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; text-align: right;"> <span style="border: 1px solid black; padding: 2px;">14</span> m     </div> <p>(c) Find the area of the shape.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">       Area of rectangle 1 = <math>4\text{m} \times 6\text{m}</math>  <math>= 24\text{m}^2</math> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content;">       Area of rectangle 2 = <math>8\text{m} \times 6\text{m}</math>  <math>= 48\text{m}^2</math> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content;">       Area of shape = <math>24\text{m}^2 + 48\text{m}^2</math>  <math>= 72\text{m}^2</math> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; text-align: right;"> <span style="border: 1px solid black; padding: 2px;">72</span> m<sup>2</sup> </div>