

Oxford Revise | Edexcel GCSE Maths Foundation | Answers

Chapter 14 Units and measures

Question	Answer	Extra information	Marks
14.1 (a)	millimetres (mm) or centimetres (cm)		1
14.1 (b)	grams (g)		1
14.1 (c)	millilitres (ml) or centilitres (cl)		1
14.2 (a)	$17 \times 10 = 170$ mm		1
14.2 (b)	$2500 \div 1000 = 2.5$ g		1
14.2 (c)	$0.35 \times 1000 = 350$ ml		1
14.3	$3.6 \text{ kg} + 50 \text{ g} = 3600 + 50 = 3650 \text{ g}$		1
	$3650 \div 1000 = 3.65 \text{ kg}$ Alternatively, convert 50 g to kg first		1
14.4	George = $1.68 \text{ m} + 0.08 \text{ m} = 1.76 \text{ m}$	Convert to the same units and add	1
		Correct answer	1

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14.5	<table border="1"> <thead> <tr> <th>Item</th> <th>Mass (g)</th> </tr> </thead> <tbody> <tr> <td>Ornament</td> <td>230</td> </tr> <tr> <td>Six candles</td> <td>954</td> </tr> <tr> <td>String</td> <td>85</td> </tr> <tr> <td>Tape</td> <td>280</td> </tr> <tr> <td>Five DVDs</td> <td>390</td> </tr> <tr> <td>Box</td> <td>285</td> </tr> <tr> <td>Total</td> <td>2224</td> </tr> </tbody> </table>	Item	Mass (g)	Ornament	230	Six candles	954	String	85	Tape	280	Five DVDs	390	Box	285	Total	2224	<p>Six candles = $6 \times 159 = 954$ g</p> <p>Five DVDs = $5 \times 78 = 390$ g</p> <p>Total, including the box = 2.224 kg</p>	<p>1</p> <p>1</p> <p>1</p>
	Item	Mass (g)																	
	Ornament	230																	
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	Five DVDs	390																	
	Box	285																	
Total	2224																		
Total mass of the box and its contents is 2.224 kg																			
14.6	$45 + 23 + 68 = 136$ minutes	Answer in minutes only	1																
	= 2 hours 16 minutes	Answer in hours and minutes	1																
14.7	$0.25 \times 60 = 15$ minutes	Correct equation	1																
		Correct answer	1																
14.8	A = 4.6		1																
	B = 0.7		1																

Question	Answer	Extra information	Marks
14.9	Car A: $\frac{600 \text{ km}}{7.5 \text{ hours}} = 80 \text{ km/h}$ Car B: $\frac{807 \text{ km}}{9 \text{ hours}} = 89\frac{2}{3} \text{ km/h}$ Car B has the fastest average speed.	Convert Car A's time to 7.5 hours Speed equation for Car A Speed equation for Car B Correct answer	1 1 1 1
14.10	$2400 \div 20 = 120 \text{ seconds (= 2 minutes)}$	$2400 \div 20$ Correct answer, including units	1 1
14.11	Mass = density \times volume $= 8.94 \times 0.6 = 5.364 \text{ g}$	Attempt to use the correct formula Correct answer, including units	1 1
14.12	Sugar: $36 \times 28 = 1008 \text{ g} = 1.008 \text{ kg}$ Flour: $2 \times 0.45 = 0.9 \text{ kg}$ Total = $1.008 + 0.9 = 1.908 \text{ kg}$	$36 \times 28 = 1008 = 1.008$ $2 \times 0.45 = 0.9$ Correct answer	1 1 1
14.13	Pressure = Force \div Area $= 36 \div 0.45$ $= 80 \text{ N/m}^2 \text{ (or } 80 \text{ Pa)}$	Attempt to use the correct formula Correct answer, including units	1 1
14.14	$40 \times 10 \times 10 = 4000 \text{ mm}^2$	$40 \times 10^2 \text{ or } 1 \text{ cm}^2 = 100 \text{ mm}^2, \text{ etc.}$ Correct answer	1 1
14.15	$120 \div 100^3 = 0.000 12 \text{ m}^3$	$120 \div 100^3 \text{ or } 1 \text{ cm}^3 = 0.000 001 \text{ m}^3, \text{ etc.}$ Correct answer	1 1

Question	Answer	Extra information	Marks
14.16	1 litre = 1000 cm ³ , so 8 litres : 1500 cm ³ = 8000 : 1500 Simplifies to 16 : 3	Convert litres to cm ³ Correct unsimplified ratio Correct, completely simplified ratio	1 1 1
14.17	$1.5 = \frac{3}{2}$, so the reciprocal is $\frac{2}{3}$		1
14.18	$\frac{3200 - 2500}{2500} \times 100\% = \frac{7}{25} \times 100\%$ = 28%		1 1 1