

Oxford Revise | AQA 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>Ball of string</td> <td>85</td> </tr> <tr> <td>Tape dispenser</td> <td>280</td> </tr> <tr> <td>Five batteries</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	Ball of string	85	Tape dispenser	280	Five batteries	390	Box	285	Total	2224	<p>Six candles = $6 \times 159 = 954$ g</p> <p>Five batteries = $5 \times 78 = 390$ 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																	
	Six candles	954																	
	Ball of string	85																	
	Tape dispenser	280																	
	Five batteries	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: $\frac{600 \text{ km}}{7.5 \text{ hours}} = 80 \text{ km/h}$	Convert Car A's time to 7.5 hours	1
	Car B: $\frac{807 \text{ km}}{9 \text{ hours}} = 89\frac{2}{3} \text{ km/h}$	Speed equation for Car A	1
		Speed equation for Car B	1
	Car B has the higher average speed.	Correct answer	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
	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
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