

The following marks are awarded for each question.

B	Unconditional accuracy mark
M	Method mark – the correct method must be shown but there may be an arithmetic error; the sight of the value given in brackets implies the award of the method mark
A	Accuracy mark – unless the question specifies that working must be shown then the sight of the correct answer implies the award of full marks (unless the answer clearly comes from incorrect working)
C	Communication mark
P	Process mark to show correct process for problem solving. Any other process of a similar standard to achieve an accurate result is acceptable to achieve this mark
FT	Incorrect values may be followed through from one step to the next provided that the correct method is seen in each step and the only errors are arithmetic. This is shown in mark schemes by putting a number in inverted commas
OE	Or equivalent answer mark

Q	Answer	Mark	Comment
1a	448000cm ³	M1	$80 \times 80 \times 70$
		A1	OE; units needed
1b	56 (mins)	M1	$(“448\,000” \div 1000) \div 8$
		A1	
3a	1.75 hours or 1 hour 45 mins or 105 mins	M1	$70 \div 40$
		A1	must include correct units
3b	65 (km)	M1	for knowing $D = S \times T$, e.g. 1.25×52 OE, e.g. $52 + 13$; for this mark allow 52×1.15
		A1	

3c	45 (km/h)	M1	$(70 + "65") \div (1 \text{ hour } 15 \text{ mins} + 1 \text{ hour } 45 \text{ mins});$ use of 1.15 + 1.75 gains zero
		A1	
5a	$P = 9H$	B2	B1 for $9H$ or $P =$ some multiple of H or, e.g. $P = H + 9$ (ignore £ signs in formula)
5b	22.5	M1	202.50 = 9H oe e.g. $202.50 \div 9$; FT a formula in the form $P = nH$
		A1	
7	8	M1	$60 \div 7.5$
		A1	
9	20 (%)	M1	$\frac{18}{90} \times 100$ OE
		A1	

11	£9.50	M1	for sight of 106% or 1.06, e.g. $106\% = 10.07$	
		M1		$10.07 \div 1.06$ OE, or $100 \div 1.06 \times 10.07$
		A1		
13	£6274.07	M2	6000×1.015^3 M1 for $6000 \times 1.015 (= 6090)$ OE	
		A1		
15	285	M1	$x = ky$ or $60 = k \times 4$ or $19 \div 4$	
		M1		$19 \div 4 \times 60$ or or $k = 15$
		A1		

Question	Topic	Step	Mark
1a	Calculate the lengths and areas given the volumes in right prisms	7th	2
1b	Solve problems using constant rates and related formulae	7th	2
3a	Solve problems involving compound measures	8th	2
3b	Solve problems involving compound measures	8th	2
3c	Solve problems involving compound measures	8th	2
5a	Construct equations by linking expressions to given information (e.g. if the expression $2d + 18$ is used to find the cost of hiring a machine for d days and I spend £34 hiring it, form an equation using this information)	5th	2
5b	Construct equations by linking expressions to given information (e.g. if the expression $2d + 18$ is used to find the cost of hiring a machine for d days and I spend £34 hiring it, form an equation using this information)	5th	2
7	Solve problems using constant rates and related formulae	7th	2
9	Interpret percentage and percentage change as a fraction or a decimal	4th	2
11	Use the unitary method for an inverse operation, e.g. If I know an item was 80% of the original cost in a sale, find the original price	7th	3
13	Calculate repeated proportional change	8th	3
15	Set up equations to show direct proportion	8th	3

