Percentages

Mark Scheme 3

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Paper Type	Extended
Topic	Number
Sub-Topic	Percentages
Booklet	Mark Scheme 3

Time Allowed: **60 minutes**

Score: **/50**

Percentage: **/100**

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	60%	45%	35%	25%	<25%

1	**(a) (i)**	$\frac{6}{5+6+3}\times 560$ [= 240]	**2**	Accept 'of' used instead of × **M1** for 560 ÷ (5 + 6 + 3)
	(ii)	120	**1**	
	(b)	90	**2**	**M** for $\frac{3}{8}\times 240$ oe
	(c) (i)	96120 final answer	**2**	**M1** for *their*(*a*)(ii) × 75 + (560 – *their* (*a*)(ii)) × 198 oe
	(ii)	187.5[0] final answer	**3**	**M** for $\frac{198}{1+0.056}$ oe or **M1** for (100 + 5.6)[%] = 198 oe seen
	(d)	184[.2....]	**3**	**M2** for $\frac{36\times 0.75-9.5}{9.5}\times 100$ oe **or M1** for $\frac{36\times 0.75}{9.5}\times 100$ or $36\times 0.75-9.5$ [17.5] used implied by answer 84.2 or **SC1** for final answer 284[.2..]
	(e)	69.4 and 69[.0]	**3**	**SC** for one correct or both correct but reversed **M1** for two of 10.85, 10.95, 23.65 or 23.75 seen or 2(23.7 + 10.9) + 4(0.05) or 2(23.7 + 10.9) – 4(0.05)

2	96	**2**	**M1** 72 / 0.75 oe or **M1** 0.75*x* = 72 oe

3	88.2(0)	**2**	**M1** for 84 × 1.05 oe

4	**(a) (i)** [0]9 15 [am]	**1**	Any acceptable form of time
	(ii) 64.9 or 65.[0] or 64.92 to 64.98	**2**	**M** for 92 ÷ (1 and 25 mins) or 92/85 × 60 oe or 92 ÷ (1.41 to 1.42)
	(iii) 11.76…or 11.8	**1**	
	(iv) 80	**3**	**M2** for 92 ÷ 1.15 oe or **M1** for 115% associated with 92
	(b) (i) 150 ÷ (11 + 16 + 3) or 150 × 3 oe	**M1**	Correct first step
	then × 3 or ÷ 30	**E1**	Correct conclusion
	(ii) 11 : 9 final answer	**2**	**M1** for 8.25 : (15 – 8.25) oe For **M1** e.g. allow 1 : 0.818 [0.8181 to 0.8182] or 1.22.. 1 [1.222…] **After M0**, **SC1** for 9 : 11 as final answer

5 **(a)**	15	**2**	**M1** for $\frac{(9-3)}{0.4}$ oe
(b)	11.7(0)	**2**	**M1** for 9 × 1.3 oe

6 **(a)**	445 final answer www 3	**3**	**M2** for 351.55 ÷ (1 – 0.21) oe or **M1** for 351.55 = (100 – 21) (%)
(b)	640 or 4640	**2**	**M1** for 4000 × 0.08 × 2 oe
	4622.5 or 622.5	**2**	**M1** for 4000 × $(1.075)^2$ oe or 4000 × 0.075 (= 300) **and** (4000 + their 300) × 0.075 **and** total interest = the sum of their 2 interests.
	Alex by 17.5(0) cao final answer www 6	**2**	**M1** for S I amount – C I amount or reverse or simple interest – compound interest or reverse

7	9 h 12 min	**3**	**M** for 8 × 1.15 **A1** for 9.2 **B1 ft** independent for their 9.2 correctly converted into hours and minutes

8	68.5 www	**3**	**M** for 67.13 ÷ 0.98 or **M1** for 67. 13 is 98%