



Finance Problems

Mark Scheme 3

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

Time Allowed: 65 minutes

Score: /54

Percentage: /100

Grade Boundaries:

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

1	(a)	2814 final answer	2	M1 for $2345 \div 5$ soi by 469 or ans = 2810
	(b)	257.95 final answer	2	M1 for 2345×0.11 oe or ans = 258
	(c) (i)	280.5[0] final answer	2	M1 for $330 \times (1 - 0.15)$ oe or ans = 281
	(ii)	375		M2 for $330 \div (1 - 0.12)$ oe Or M1 for $330 = (100 - 12)\%$ oe
	(d)	1605.89 or 1605.9[0]	3	M2 for $1500 \times (1 + 0.023)^3$ oe soi by 1605.898751 or $1500 \times 1.07(05\dots)$ Or M1 for $1500 \times (1 + 0.023)^2$ oe
(e)	23.1 or 23.07 to 23.08	3	M2 for $\frac{325 - 250}{325} \times 100$ oe Or M1 for $\frac{325 - 250}{325}$ soi by 0.2307... 3sf or better or $\frac{250}{325} \times 100$ soi by 76.9...	

2	96	2	M1 for $\frac{600 \times 2 \times 8}{100}$ oe If zero SC1 696
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3	843.75	3	M2 for $\frac{750 \times 5 \times 2.5}{100} + 750$ oe or M1 for $\frac{750 \times 5 \times 2.5}{100}$ oe or SC2 for answer 93.75
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4	120	2	M1 for $\frac{750 \times 2 \times 8}{100}$ oe seen or SC1 870 as final answer
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5 (a)	1134	3	M2 for $\frac{504}{12} \times (12 + 7 + 8)$ soi by answer of 1130 or B1 for 27 or 42 or 294 or 336 seen
(b) (i)	468.72	3	M2 for $\frac{93}{100} \times 504$ oe soi by 468.7 or 469 or M1 for $\frac{7}{100} \times 504$ (implied by 35.28)
(ii)	84	3	M2 for $\frac{64.68}{77} \times 100$ or M1 for $(100 - 23)\% = 64.68$
(c)	262.19 cao	3	M2 for 250×1.016^3 oe implied by answer 262.2 or better or M1 for 250×1.016^n oe $n > 2$ seen
(d)	12.5%	3	M2 for $\frac{324 - 288}{288} \times 100$ or M1 for $\frac{324}{288} \times 100$ (112.5) or $\frac{36}{288}$ (0.125)

6	<p>(a) (i) 14.62 final answer</p> <p>(ii) 20 www</p> <p>(iii) 135 www</p> <p>(b) $c + 4d = 27.10$ oe $c + 7d = 34.30$ oe Elimination of one variable $(c =) 17.5(0)$ and $(d =) 2.4(0)$</p> <p>(c) 36 cao</p> <p>(d) 606.744 or 606.74 or 606.7(0) or 607</p>	<p>3 M2 for $0.85 \times 20 \times 0.86$ oe soi by 14.6(0) or M1 for 0.85×20 soi by 17 or 0.85×0.86 soi by 0.731</p> <p>3 M for $16.40 / 0.82$ oe or M1 for 16.40 associated with 82%</p> <p>2 M1 for $(108 \times 5) / 4$</p> <p>B1 Could use other variables but must be consistent</p> <p>B1</p> <p>M1 for correct elimination of one variable from their equations – condone 1 arithmetic slip</p> <p>A1 Correct answers from no working scores SC1 only</p> <p>3 B1 for 7h 30 min or 7.5 or 450 (mins) seen and M1 for $270/t$ where $7 \leq t \leq 9$</p> <p>2 M for $540 \times (1.06)^2$ oe but not $(1 + 6\%)^2$ unless recovers For step by step method, must see 572.4(0) and a correct method for the second year M0 if any further addition or subtraction</p>
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