



Finance Problems

Mark Scheme 4

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Paper Type	Extended
Topic	Number
Sub-Topic	Finance Problems
Booklet	Mark Scheme 4

Time Allowed: 80 minutes

Score: /66

Percentage: /100

Grade Boundaries:

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

1 (a)	(i) $\frac{1380}{62+53} \times 62$	1	Allow 115 for $62 + 53$
	(ii) 7.27 (7.271 to 7.272)	1	
	(iii) 42	2	M1 for $\frac{3150}{75}$ oe
(b)	(i) 235	3	B2 for angle $ACS = 55$ or angle $ACN = 125$ B1 for 55 seen
	(ii) 12.6 (12.58 to 12.59)	3	M2 for $\frac{4}{6} \times 18.9$ or $4 + 4 + 2 \times 4 \times \cos 55$ or $4 + 4 + 2 \times 4 \times \sin 35$ oe (M1 for $\frac{4}{6}$ soi or $2 \times 4 \times \cos 55$ or $2 \times 4 \times \sin 35$ soi oe)
(c)	1500		M2 for $\frac{1380}{1-0.08}$ oe (M1 for recognition that $92\% = 1380$)

2	(a) 20200	2	M1 $65 \times 300 + 700$
	(b) 1260	2	M1 $71190 / 56.5$

3	(a) $200 \div 10 \times 3$ oe $200 \div 10 \times 2$ oe	M1 M1	
	(b) 65	2	M1 for $\frac{39}{60} \times 100$ oe 35 is M0
	(c) 46	3	M2 for $36.80 \div 0.8$ oe or M1 for $80\% = 36.80$ oe
	(d) 0.6(0)	3	M2 for $5(x+12) + 2x = 64.2$ oe or $(64.2 - 5 \times 12) \div 7$ or $5x + 2(x-12) = 64.2$ oe or $(64.2 + 2 \times 12) \div 7$ or M1 for $y = x + 12$ and $5y + 2x = 64.2$ or $y = x - 12$ and $5x + 2y = 64.2$ After M0 , SC1 for $k(x \pm 12)$ seen

4 (a) (i)	(\$) 6 000	B2	M1 for $0.1 \times 10\ 000 + 0.25 \times 20\ 000$ oe
(ii)	15 (%)	B2	M1 for $\frac{\text{their(a)(i)}}{40000} \times 100$
(b)	(\$) 11 200	B1 ft	ft $17200 - \text{their (a)(i)}$
(c) (i)	(\$) 7500 cao	B2	M1 for $\frac{12000}{5+3} \times 5$ oe After M0, SC1 for 4500
(ii)	9/80 cao	B1	Ignore decimals or %'s seen Mark final fraction
(d)	(\$) 8640	B2	M1 for $10\ 800 \div 1.25$ oe

[10]

5 (a) (i)	385×0.9 oe (\$) 346.5(0) c	M1 A1	Implied by ans 346 or 347 www2
(ii)	$385 \div 1.1(0)$ oe (\$) 350 cao	M1 A1	www2
(b) (i)	$\frac{23}{23+19} \times 210$ oe 115 cao	M1 A1	www2
(ii)	their (i) $\times 2.50 + (210 - \text{their (i)}) \times 1.50$ (\$) 430 cao	M1 A1	(287.5 + 142.5) www2
(iii)	$\{\text{their (ii)} - 410\} / 410 (\times 100)$ oe 4.88	M1 A1	Dep on (ii) being greater than 410 www2 (4.878 ...) After M0, SC1 for 104.9 or better or 4.9 ww
(c)	$2.6(210 - x)$ or $1.4(210 - x)$ seen $2.6(210 - x) + 1.4x = 480$ $546 - 480 = 2.6x - 1.4x$ or $2.6x - 1.4x = 480 - 294$ 55 cao	M1 M1 M1 A1	Allow $2.6x + 1.4(210 - x) = 480$ Dep on M2 if trial and error, B4 or B0 if using simultaneous equations $x + y = 210$ M1 $1.4x + 2.6y = 480$ M1 variable eliminated by correct method M1d After 0 scored, SC2 for ans 155

[14]

6	(a)	1216	B1	
	(b)	1.47	B1	
	(c)	$\frac{11.5 - 9.75}{11.5} \times 100$	M1	
		15.2	A1	ww2 SC1 for 17
	(d)	4347 ÷ 7 o.e.	M1	
		621	A1	ww2
	(e)	4347 ÷ 0.9 o.e.	M1	
		4830	A1	ww2
	(f)(i)	$\frac{2350}{3.25}$ o.	M1	Must deal with the minutes correctly
	(ii)	723 to 723.1 200.9 to 201	A1 A1ft	ww2 their (i) ÷ 3.6 r.o.t. to 3sf or better
				[11]

7	450	M1 for $3000 \times 7.5 \times 2/100$
---	-----	--

8	$l = mr/5$	2*	M1 for $\frac{240 \times r \times m}{100 (\times 12)}$ o.
---	------------	----	--