



Free Standing Maths Qualification

Calculating Finances 6984

Intermediate Level

Mark Scheme

2006 examination – January series

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Calculating Finances

Free-Standing Mathematics Qualification
Intermediate Level Calculating Finances (6984)
January 2006

Answers and Marking Scheme

Question 1

1 a (i)	£155.91	B1	Ignore further working
(ii)	Total repayments is $£155.91 \times 36$ $= £5612.76$	M1	
	Interest is £612.76	A1	
b (i)	$\frac{306.94}{100}$ $= £3.07$	M1 A1	Accept £3.0694
(ii)	Monthly repayment is $51 \times £3.0694$ $= £156.54$	M1 A1	
	Total repayment is £5635.44 Interest is £535.44	M1 A1	Accept £536.52 from £3.07
(c)	£5001, benefits from lower interest rate.	B1	Accept £5100
	TOTAL	10	

Question 2

	A	B	C	D	E
1	Brand of car	Number of cars sold in 2002	Number of cars sold in 2003	Change in number of cars sold	Percentage change in number of cars sold
2	Ford	400 808	378 942	-21 866	-5.455
3	Vauxhall	318 633	326 433	7 800	2.448
4	Renault	194 685	189 427	-5 258	-2.701
5	Peugeot	208 920	184 940	-23 980	-11.478
6	Citroen	130 415	117 602	-12 813	-9.825

(a)	Column D	B1	
	Any in column E	M1A1	Condone any + or – signs
	All column E correct	B1	Accept rounded or truncated to 1dp
(b)	$\frac{D^4}{B^4} \times 100$	B1	Accept $\frac{C^4 - B^4}{B^4} \times 100$
	TOTAL	5	

Question 3

	13 033 \approx 12.47%	B1	
	$100\% = \frac{13033}{12.47} \times 100$	M1	
	= 104 514.8.....	A1	
	= 104 500	A1	Misplaced decimal point; SC2
	TOTAL	4	

Question 4

	7 parts	B1	
	$\frac{5}{7} \times 35000$	M1	
	= £25 000	A1	
	TOTAL	3	

Question 5

(a)	Plotted correctly	B2	B1 for 2 correct
(b)	Large reduction in those with negative equity.	B1	Accept any sensible comment
	TOTAL	3	

Question 6

(a)	Annual income = $£4170 \times 12$		
	= £50 040	B1	If 45145 seen in (b) and another ans in (a) } B1M1
	Taxable income = $£50\,040 - 4895$	M1	
	= £45 145	A1	Ignore any subsequent work seen
(b)	Tax paid is 10% of £2090 + 22% of £30 310 + 40% of £12 745	M1	45145 – 32400
	= $£209 + £6668.20 + £5098$	A1	12 745
		M1	3 products
		A1	Any 2 correct
	= £11 975.20	A1	
	TOTAL	8	

Question 7

	Payment is 11% of £15	B1	£15
	= £1.65	B1	
	TOTAL	2	

Question 8

(a)	Use of 120 and 50p $120 \times \frac{100}{50}$ = 240	B1 both M1 A1	Accept 117 and 50p [50p or $\pounds \frac{1}{2}$] Accept $117 \times \frac{100}{50} = 234$
(b)	240×50 = 12 000	B1	Dependent on B1 gained in (a) Condone 4×12 instead of 52 $240 \times 52 = 12\ 480$ Accept $234 \times 52 = 12\ 168$ $230 \times 52 = 11\ 960$ $234 \times 50 = 11\ 700$ $230 \times 50 = 11\ 500$
	TOTAL	4	

Question 9

	$1 - 0.7$ = 0.3	M1 A1	
	TOTAL	2	

Question 10

	Normal price is $1.75 \times$ cost price New price is $1.3 \times 1.75 \times$ cost price = $2.275 \times$ cost price Profit is $1.275 \times$ cost price which is 127.5 %	M1 A1 M1 A1	OR 30% increase is $\frac{30}{100} \times 175$ M1 = 52.5 A1 \therefore Increase is $75 + 52.5$ M1 = 127.5% A1
	TOTAL	4	

Question 11

(a)	1.0022^{12} $= 1.02672\dots$ Amount is $\pounds 5000 \times 1.02672\dots$ $= \pounds 5133.61$	B1 M1 A1	Accept 5133.60
b	Investment becomes 102.672 % of the original amount AER is 2.67%	B1 B1	Or Interest is $\pounds 133.61$ AER is $\frac{133.61}{5000} \times 100$ M1 $= 2.67\%$ A1
	TOTAL	5	
	TOTAL MARKS	50	