



Free-Standing Mathematics Qualification

Managing Money 6981/2

Mark Scheme

2007 examination - June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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Key to mark scheme and abbreviations used in marking

M	mark is for method		
m or dM	mark is dependent on one or more M marks and is for method		
A	mark is dependent on M or m marks and is for accuracy		
B	mark is independent of M or m marks and is for method and accuracy		
E	mark is for explanation		
√ or ft or F	follow through from previous incorrect result	MC	mis-copy
CAO	correct answer only	MR	mis-read
CSO	correct solution only	RA	required accuracy
AWFW	anything which falls within	FW	further work
AWRT	anything which rounds to	ISW	ignore subsequent work
ACF	any correct form	FIW	from incorrect work
AG	answer given	BOD	given benefit of doubt
SC	special case	WR	work replaced by candidate
OE	or equivalent	FB	formulae book
A2,1	2 or 1 (or 0) accuracy marks	NOS	not on scheme
-x EE	deduct x marks for each error	G	graph
NMS	no method shown	c	candidate
PI	possibly implied	sf	significant figure(s)
SCA	substantially correct approach	dp	decimal place(s)

No Method Shown

Where the question specifically requires a particular method to be used, we must usually see evidence of use of this method for any marks to be awarded. However, there are situations in some units where part marks would be appropriate, particularly when similar techniques are involved. Your Principal Examiner will alert you to these and details will be provided on the mark scheme.

Where the answer can be reasonably obtained without showing working and it is very unlikely that the correct answer can be obtained by using an incorrect method, we must award **full marks**. However, the obvious penalty to candidates showing no working is that incorrect answers, however close, earn **no marks**.

Where a question asks the candidate to state or write down a result, no method need be shown for full marks.

Where the permitted calculator has functions which reasonably allow the solution of the question directly, the correct answer without working earns **full marks**, unless it is given to less than the degree of accuracy accepted in the mark scheme, when it gains **no marks**.

Otherwise we require evidence of a correct method for any marks to be awarded.

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Answers and Marking Scheme - June 2007

Question 1

(a)	17p	B1	
(b)	$\pounds 1.48 \times 3$ = $\pounds 4.44$	B1	
(c)	4.8×89 = $\pounds 4.27$	M1 A1	3.56 and 0.71 build up
(d)	Number of strings = $\frac{4.56}{1.14}$ = 4 Number of bulbs = 4×6 = 24	M1 A1 A1	
	TOTAL	7	

Question 2

	Discount is $\frac{1}{3} \times 63$ = 21p Price is 42p	M1 A1 A1	$\frac{2}{3} \times 63$ M1 = 42p A2
	TOTAL	3	

Question 3

	<p>Original cost is $3.5 \times \text{£}1.08$ $= \text{£}3.78$</p> <p>Discount is $\frac{40}{100} \times \text{'}3.78\text{'}$</p> <p>$= \text{£}1.51$</p> <p>Price is $\text{£}2.27$</p>	<p>B1 M1</p> <p>A1</p> <p>A1</p>	<p>Or</p> <p>Cost is $\frac{60}{100} \times 3.78$ M1 $= \text{£}2.27$ A2</p> <p>40% ~ 1.4kg M1 60% ~ 2.1kg A1</p> <p>Alternative Method</p> <p>Cost per kg is $\text{£}1.08 \times 0.6 = 64.8\text{p}$ or 65p B1 Cost is $3.5 \times 65\text{p}$ M1 $= \text{£}2.275$ A1 $= \text{£}2.28$ or $\text{£}2.27$ A1</p> <p>Reduction per kg is $\text{£}1.08 \times 0.4 = 43.2\text{p}$ or 43p M1 Reduction is $3.5 \times$ $43\text{p} = \text{£}1.50$ or $\text{£}1.51$ or $\text{£}1.512$ A1</p>
	TOTAL	4	

Question 4

	<p>$\text{£}40 - \text{£}21.42$ $= \text{£}18.58$</p>	<p>M1 A1</p>	
	TOTAL	2	

Question 5

(a)	£500	B1	
(b)	£460	B1	
	TOTAL	2	

Question 6

(a)(i)	$\frac{3}{10}$	B1	
(a)(ii)	0.3	B1	Accept 0.30 or .30
(b)	80 unsold $\frac{80}{400} \times 100$ = 20%	B1 M1 A1	$\frac{320}{400} \times 100 = 80$ SC2 $\frac{1}{5} \Rightarrow$ B1
	TOTAL	5	

Question 7

	A	B	C	D	E	
1	Destination	Cost in September (£)	Cost in August (£)	Increase in cost (£)	Increase as a percentage of September price	
2	Cyprus	2067	2478	411	20	19.88
3	Greece	1746	2316	570	33	32.65
4	Ibiza	1302	2452	1150	88	88.32
5	Portugal	2260	2492	232	10	10.26
6	Turkey	1450	1903	453	31	31.24

(a)	Column D Any correct in column E All others correct Nearest integer	B1 M1A1 A1 B1	Dependent on M1
(b)	$\frac{D4}{B4} \times 100$ or $\frac{C4-B4}{B4} \times 100$	B1	
(c)	No, only a few destinations listed	B1	Any sensible answer
	TOTAL	7	

Question 8

	Supermarket angle = $\frac{37}{100} \times 360$ = 133° Other angles 112°, 50°, 65° Labels Accuracy	M1 A1 A1 B1 B1	Within 1° If a percentage protractor has been used, either all 5 or 0. Dependent on M1 Dependent on M1 Within 3°
	TOTAL	5	

Question 9

(a)	Interest is $\frac{4.29}{100} \times £4000$ = £ 171.60	M1 A1	Condone 4171.60 in answer
(b)	Interest is $4086.40 \times \frac{2.16}{100}$ Total £4174.67	M1 A1	Accept £88.27 M1 for £4174.66
(c)	Green Emerald £3.07 more	B1	Accept ±2 p ft from (b) Accept 0.0766%
	TOTAL	5	
	TOTAL MARK FOR PAPER	40	