

# Mark Scheme (Results) January 2011

Functional Skills

Functional Skills Mathematics Level 1 (FSM01)

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## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

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Question	Process	Mark	Mark Grid	Evidence
Q1 (a)	States which month Phil should go on holiday <b>or</b> Gives a reason.	1 or	AA	Indicates February, £800 or indicated in table <b>or</b> valid reason eg: he earns the least does not earn a lot allow 'It's a lot cheaper to go' <b>or</b> With a valid reason, gives another month.
	States which month Phil should go on holiday <b>and</b> Gives a reason.	2	AA AB	Indicates February <b>and</b> acceptable reason
Q1(b)	Appropriate type of graph Bar Chart or Frequency Polygon / Line graph	1 or	AC	one of: plotting, linear money scale, labels (2mm tolerance for plotting)
		2 or	AC AD	two of: plotting, linear money scale, labels (2mm tolerance for plotting)
		3	AC AD AE	three of: plotting, linear money scale, labels (2mm tolerance for plotting)
<b>Total marks for question</b>		<b>5</b>		

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Question	Process	Mark	Mark Grid	Evidence
Q2	Works with months or differences	1 or	AF	<p><b>Method A</b> division:  <math>28314 \div 12 (= 2359.5)</math> or <math>27204 \div 12 (= 2267)</math> or  <math>26250 \div 12 (= 2187.5)</math></p> <p><b>Method B</b> differencing:  <math>28314 - 27204 (= 1110)</math> or <math>27204 - 26250 (= 954)</math> or  <math>28314 - 26250 (= 2064)</math></p> <p><b>Method C</b> 'Testing'  <math>70 \times 12 (= 840)</math></p>
	Works with months and differences	2 or	AF AG	<p><b>Method A</b> differencing:  '<math>2359.5</math>' - <math>2267 (= 92.5)</math> or '<math>2267</math>' - <math>2187.50 (= 79.5)</math>  or '<math>2359.5</math>' - <math>2187.5 (= 172)</math></p> <p><b>Method B</b> division  '<math>1110</math>' <math>\div 12 (= 92.5)</math> or '<math>954</math>' <math>\div 12 (= 79.5)</math>  or '<math>2064</math>' <math>\div 24 (= 86)</math></p> <p><b>Method C</b> differencing or adding on  <math>28314 - '840' (= 27474)</math> or <math>27204 - '840' (= 26364)</math>  or <math>26250 + '840' (= 27090)</math> or <math>27204 + '840' (= 28044)</math></p>
	Works with all years	3	AF AG AH	<p><math>79.5(0)</math> or 79 or 80 <b>and</b> <math>92.5(0)</math> or 92 or 93  <math>172 \div 2 (= 86)</math> <b>or</b> 172  27474 and 26364 <b>or</b>  27090 and 28044</p>
	Comparison made, based on complete working	1	AJ	Decision made for 'their' figures and valid working. Figures to cover all years.
<b>Total marks for question</b>		<b>4</b>		

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Question	Process	Mark	Mark Grid	Evidence
Q3 (a)	Shed sketched on plan	1 or	AK	Two of: correct length, correct width, correct position
		2	AK AL	All three of: correct length, correct width, correct position
Q3 (b)	Calculates times	1 or	AM	Throughout: accept any clear time notation ignore 0945 condone intervals between jobs  At least two 'correct' times are seen. ft from an incorrect time
		2 or	AM AN	At least four 'correct' times are seen ft from an incorrect time
		3	AM AN AP	At least six 'correct' times are seen. ft from an incorrect time.
	Co-ordinates plan	1 or	AQ	At least two jobs are associated with 'correct' times
		2	AQ AR	All jobs associated with correct times. Finish time is present.
				0900,1030,1100,1215,1400,1445,1845. oe
<b>Total marks for question</b>		<b>7</b>		

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Question	Process	Mark	Mark Grid	Evidence
Q4	Begins to design a data collection sheet.	1 or	A	At least 6 (meal choices or headings) <b>or</b> (meal choices or headings) with Input opportunities.
	Partially Complete specification.	2 or	A B	At least 6 (meal choices or headings) <b>and</b> Input opportunities or
	Complete specification.	3	A B C	All meal choices and all headings With Input opportunities.
<b>Total marks for question</b>		<b>3</b>		

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Question	Process	Mark	Mark Grid	Evidence
<b>Q5 (a)</b>	Addresses Circular <b>or</b> Rectangular Tables.	1 or	D	If 202 used for 200 ft Eg: $200 \div 8$ <b>or</b> testing $\times 8$ to reach 200 <b>or</b> $200 - 10 (=190)$ <b>or</b> $200 \div 10$ or $20 \times 10$ <b>or</b> Diagram showing tables and numbers
	Addresses Circular <b>and</b> Rectangular Tables	2 or	D E	Eg: $190 \div 8$ (= 23.75 or 23 or 24) <b>or</b> Repeated subtraction (at least twice) from '190'
	Correct answer	1	F	24
<b>Q5 (b)</b>	Method for calculating discount.	1 or	G	Eg: $160 \times 0.1$ (=16) or equivalent method or 144
	Correct answer	2	G H	(£)16
<b>Total marks for question</b>		<b>5</b>		



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Question	Process	Mark	Mark Grid	Evidence
<b>Q6 (a)</b>	Finds cost for meals for one hotel	1 or	J	If 202 used for 200 ft $10 \times 200 (= 2000)$ or $15 \times 200 (= 3000)$ or $12 \times 200 (= 2400)$
	Finds costs for one Hotel	2 or	J K	Calculations to find Hotel cost eg: ' $10 \times 200$ ' + 2000 (=4000) ' $15 \times 200$ ' + 300 (=3300) ' $12 \times 200$ ' + 200 + 1000 (= 3600 ) Or calculations to determine if Hotel is within budget eg: $3500 - 2000 - '10 \times 200'$ $3500 - 300 - '15 \times 200'$ $3500 - 1000 - 200 - '12 \times 200'$
	Calculations to find costs for all Hotels	3	J K L	Three costs are found correctly 4000,3300,3600 or Clear calculations to determine if all hotels are within budget.
	Comparisons made decisions taken	1 or 2	M M N	At least two hotel costs compared and 'correct' decision <b>or</b> One hotel compared with budget  Three hotel costs compared and 'correct' decision made
<b>Q6 (b)</b>	Calculates monthly cost	1 or	P	$4320 - 400 (= 3920)$ <b>or</b> $4320 \div 16 (= 270)$
		2 or	P Q	'3920' $\div 16 (= 245)$
		3	P Q R	245
<b>Total marks for question</b>		<b>8</b>		

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Question	Process	Mark	Mark Grid	Evidence
Q7 (a)	Selecting Information	1	A	Selects at least one correct distance 64+ 148+119 (=331)  331(km)
	Selects correct distances and selects correct arithmetic operation	1 or	B	
	Correct answer	2	B C	
Q7 (b)	Interprets tabular information to solve the problem.	1	D	2 × 7.5 (=15) or 2 × 24.5 (=49) may be embedded in processing.  Summation ( at least 4 items correctly costed) to obtain '181.50' Or at least 4 successive subtractions from 200 to obtain '18.50' The result of 'their summation' or 'their subtractions' needs to be correct
	Sums to find a total	1 or	E	
	Correct answer	2	E F	
<b>Total marks for question</b>		<b>6</b>		

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Question	Process	Mark	Mark Grid	Evidence
Q8	Metric conversion	1	G	(134km =) 134000m <b>or</b> (72000m =) 72km
	Cycles R Us: Processes stage distance or sponsorship money for completing bike ride	1 or	H	$134(000) \div 8 = (16.75/16750)$ <b>or</b> $8 \times 255 (=201)$
	Sponsorship money for distance cycled	2	H J	(£) 1020
	Health food Shop: Process for completing partial or complete distance	1 or	K	$72 \times 15 (=1080)$ <b>or</b> $134 \times 15 (=2010)$
	Sponsorship money for distance cycled	2	K L	(£) 1080
	Decision	1	M	A correct decision based on valid processing and their money answers
<b>Total marks for question</b>		<b>6</b>		

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Question	Process	Mark	Mark Grid	Evidence
Q9 (a)	Begins to look at multiples	1 or	N	(£)300 000 seen <b>or</b> 450 000-150 000 seen
		2 or	N P	450 000÷3 <b>or</b> 3 parts seen <b>or</b> 2 × 150 000 + 150 000
	Correct decision based on full evidence	3	N P Q	Yes oe based on valid working
Q9 (b)	A relevant comment	1	R	A relevant comment is one in which some correct processing has taken place. £4 for every £1 NotPool raise more again They raised 250 000 NotPool raised 4 times as much
<b>Total marks for question</b>		<b>4</b>		



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