

# Mark Scheme (Results) February 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
<b>SECTION A BATTLE OF THE BANDS</b>				
Q1	Starts to interpret	1 or	A	2 of input opportunities all styles listed style of music heading all costs listed cost heading
	Develops a solution	2 or	AB	2 of explicit input opportunities all styles listed or style of music heading all costs listed or cost heading
	Presents efficient solution	3	ABC	all of efficient input opportunities all styles listed or style of music heading all costs listed or cost heading
<b>Total marks for question</b>		<b>3</b>		
Q2	Works with area	1	D	$20 \times 10 (= 200)$ or evidence of counting squares
	Starts to substitute into given formula	1 or	E	'200', $\times 2$ , or $-10$
	Complete substitution	2	EF	'200', $\times 2$ , and $-10$
	Complete calculation	1	G	390
<b>Total marks for question</b>		<b>4</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>SECTION A BATTLE OF THE BANDS</b>				
Q3	Works with dimensions in 2-d or 3-d	1	H	One block drawn correctly to scale by measuring or counting squares <b>OR</b> Ten blocks correctly to scale without internal boundaries <b>OR</b> dimensions clearly labelled on 3-d diagram
	Uses given data to draw a stage	1 or	J	At least 5 quadrilaterals (blocks) drawn in a rectangle, 'T' or 'L' shape
	Correctly presents solution within given criteria	2	JK	10 quadrilaterals (blocks) drawn in a rectangle, 'T' or 'L' shape
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
Q4 (a)	Attempts to convert times into number of hours	1	L	5 or 1hr 30 mins and 3 hours 30 mins or 1.5 and 3.5 or 1½ and 3½
Q4 (b)	Finds cost of hall	1 or	M	'5'× £6.50 <b>OR</b> repeated addition of £6.50 to match their hours <b>OR</b> other correct method £32.50 cao correct money notation
		2	MN	
Q4 (c)	Starts to calculate	1 or	P	'32.5'+320+17.50+250(=620) or divides a cost by £6.
	Coordinates information to find number of tickets	2	PQ	'620'÷6=103.3 (ft only from '32.5' used) or adds numbers of tickets to get '103.3'
	Correct decision based on fully correct method	1	R	'104'
<b>Total marks for question</b>		<b>6</b>		

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Question	Process	Mark	Mark Grid	Evidence
<b>SECTION B: AUTO PITSTOP</b>				
Q5 (a)	Attempts to calc. oil quantity for 3 cars	1 or	A	$3 \times 4 (=12)$
	Finds total oil per day	2	AB	17 (litres)
Q5 (b)	Suitable alternative calculation	1	C	Appropriate check of their calculation
Q5 (c)	Starts to calculate costs	1 or	D	Multiplies by 8 or 9 or 35 e.g $8 \times 5 (=40)$ OR $9 \times 5 (=45)$ OR $8 \times 4 (=32)$ OR $8 \times 20 (=160)$ OR $9 \times 20 (=180)$ OR 128 OR 140
	Calculates costs for comparison	2	DE	£32 compared, OR saving of £3 per 5 litres OR saving of £12 for 20 litres OR £140 and £128.
	Makes a valid comparison	1	F	Explicit comparison for their figures.
<b>Total marks for question</b>		<b>6</b>		

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Question	Process	Mark	Mark Grid	Evidence												
<b>SECTION B: AUTO PITSTOP</b>																
<b>Q6(a)</b>	Identifies some information needed	1 or	G	indicates on the diary sheets a two hour slot in one day (the slots do not need to be consecutive) <b>OR</b> a diary slot before 14.00 hours (allow 1 hour) Selects Andy, Wed 9.00 and 10.00 <b>OR</b> Thurs 11.00 and 13.00 <b>OR</b> Fri 10.00 and 11.00												
	A correct solution	2	GH													
<b>Q6(b)</b>	Starts to interprets problem Finds correct data and presents it clearly	1 or	J	At least 5 correct entries Correct number of hours for each day and each person shown												
		2	JK													
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 12.5%;">5</td> <td style="width: 12.5%;">5</td> <td style="width: 12.5%;">5(7)</td> <td style="width: 12.5%;">5(7)</td> <td style="width: 12.5%;">3(5)</td> <td style="width: 12.5%;">(23) 25</td> </tr> <tr> <td>5</td> <td>4</td> <td>3</td> <td>4</td> <td>5</td> <td>21</td> </tr> </table>					5	5	5(7)	5(7)	3(5)	(23) 25	5	4	3	4	5	21
5	5	5(7)	5(7)	3(5)	(23) 25											
5	4	3	4	5	21											
<b>Q6(c)</b>	Compares hours worked	1 or	L	One simple comparison Two simple comparisons <b>OR</b> One comparison with evidence												
		2	LM													
<b>Q6(d)</b>	Interpret data	1	N	Makes a selection that includes Andy												
	Appropriate graph or chart - bar chart, line graph, or points, duals, etc	1 or	P	1 of linear scale, labels, plotting (2mm tolerance)												
		2 or 3	PQ PQR	2 of linear scale, labels, plotting (2mm tolerance) 3 of linear scale, labels, plotting (2mm tolerance)												
<b>Total marks for question</b>		<b>10</b>														

Question	Process	Mark	Mark Grid	Evidence
<b>SECTION C: PAMPER PARTY</b>				
<b>Q7</b>	Show some understanding of problem	1	A	Identifies treatments including manicure and eyelash tint.
	Identifies some information required to solve problem	1 or	B	Attempts to total costs of at least 4 treatments
	Selects information required to solve problem	2	BC	Identifies <b>and</b> correctly totals costs of at least 4 treatments $\leq$ £50.
	Solves problem correctly with clear solution	1	D	Identifies 5 or more treatments $\leq$ £50.
<b>Total marks for question</b>		<b>4</b>		
<b>Q8</b>	Works with time	1	E	At least two times at intervals of 10 or 15 or 20 minutes
	Selects information	1	F	Break of 30 minutes or more identified
	Works with constraints	1	G	Start at 7 pm <b>and</b> finish before 9.30 pm
	Starts to present solution	1 or	H	List showing at least 4 booked treatments for at least one therapist
	Completes solution	2	HJ	Correct timetable for two therapists
<b>Total marks for question</b>		<b>5</b>		



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Question	Evidence	Mark	Mark Grid	Notes
<b>SECTION C: PAMPER PARTY</b>				
<b>Q9 (a)</b>	Starts to calculate	1 or	K	20×28 (=560 or 5.6) <b>OR</b> 2×5.80(=11.6) <b>OR</b> 3.20+4.20(=7.4) Two of: 5.60, 11.60, 7.40 or 26.30 shown on form All of 5.60, 11.60, 7.40, 26.30
	Starts to complete form	2 or	KL	
	Table completed with correct figures	3	KLM	
<b>Q9 (b)</b>	Considers adjustments	1 or	N	2(5.80–5.60) or 2× 20 <b>OR</b> 2 × 5.60 then recalculation of total 40(p) or 0.4
	Communicates conclusion	2	NP	
<b>Total marks for question</b>		<b>5</b>		
<b>Q10</b>	Starts to work with ratio	1 or	Q	4+1(=5) <b>OR</b> ÷5 <b>OR</b> $\frac{1}{5}$ or $\frac{4}{5}$ <b>OR</b> 100 or 400 100 and 400
	Applies ratio	2	QR	
<b>Total marks for question</b>		<b>2</b>		





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