



FUNCTIONAL SKILLS MATHEMATICS (level 1)

Detailed Marking Instructions

Version: May 2011

Question No	Marking Scheme Give 1 mark for each •	Illustrations of evidence for awarding a mark		
1 (a)	Ans: £675	• represent: state cost	• 675	1 mark
(b)	Ans: Yes they can afford the holiday as it will cost £1,295 and their budget is £1,400.	• represent: know how to find cost	• $899 + 4 \times 99$	
		• analyse: calculate cost of extra nights and check if it's within budget	• $1295 < 1400$	
		• interpret: Explain conclusion	• see above	3 marks
NOTES:				
1	For an answer of £1089 (11×99)		award 1/3	
2	The third mark may be awarded for stating “Yes, there is £105 left over”.			
2	Ans: £7	• represent: know how to find number of pounds	• $84 \div 12$	
		• analyse: calculate number of pounds	• (£)7	2 marks

3 (a) **Ans: £33**

- represent: state price
- £33

1 mark

(b) **Ans: They should take yearly insurance as it is £2 less**

- represent: state adult price
- £72
- represent: know how to calculate cost
- $3 \times 72 + 72 \div 2$
- analyse: calculate cost and check against yearly insurance cost
- £252 compared to £250
- interpret: explain conclusion
- They should take yearly insurance as it is £2 less or $250 < 252$

4 marks

4 (a) **Ans: September and October**

- analyse: state correct months
- September to October

1 mark

(b) **Ans: The rainfall levels decrease during the spring, reach their lowest levels in the summer, then increase again**

- interpret: start to interpret graph
- a valid comment
- interpret: continue to interpret
- another valid comment

2 marks

5 **Ans: bar graph correctly drawn**

- represent: axes labelled and months entered • evidence
- represent: use suitable scale for temperature • evidence
- represent: bar graph drawn • evidence
- represent: bar graph drawn correctly • evidence

4 marks

NOTES:

1. Acceptable scales: vertical axis: 1 box = 2°C
horizontal axis: 1 box = 3°C

2. Labels should be “Month” on one axis “Temperature” on the other.

6 **Ans: Yes, they have 20 minutes to spare**

- represent: begin to solve problem • 17 : 35 – 1 h 55 m – 50 m
- analyse: continue process • 14 : 50 or equivalent
- interpret : reach conclusion • Yes, they have 20 minutes to spare

3 marks

NOTES:

1 The first mark may be awarded for an attempt to calculate 14 : 30 + 1 h 55 m + 50 m **or** 14 : 30 + 1 h 55 m **and** 17 : 35 – 50 m.

2 For answers of 14 : 50, 17 : 15 or 16 : 25 **and** 16 : 45, with or without working, award 1/3

7 **Ans: 74C**

- analyse: correctly subtract -54 from 20 or equivalent
- 74 (C)

1 mark

8 **Ans: No, it is too broad by 2 cm**

- interpret: state conclusion
- No
- interpret: explain answer to part (a)
- It is too broad by 2 cm or $42 > 40$

2 marks

9 **Ans: No, the present is too long**

- represent: know how to work out scale
- 2cm becomes 20cm
3cm becomes 30cm
6cm becomes 60cm
- interpret: compare dimensions with allowance and draw conclusion
- longer than allowance

2 marks

10 **Ans: Fernando Car Hire, with reason**

- represent: know how to calculate cost for Axis
- 11×15
- analyse: carry out calculation correctly
- 165
- represent: know how to calculate cost for Fernando
- $11 \times 10 + 500 \div 10$
- analyse: carry out calculation correctly
- 160
- interpret: state company with reason
- Fernando with reason

5 marks

NOTES:

- 1 The reason must refer to both amounts or the difference between them, eg “Fernando because $160 < 165$ ” or “Fernando because it is 5 euros less than Axis”

11 **Ans: No, they are 10 metres short**

- represent: substitute correctly in formula
 - analyse: carry out calculation correctly
 - represent: know how to find distance covered
 - analyse: calculate distance covered
 - interpret: check if distance is more than 500m
- $2 \times 24 + 2 \times 11$
 - 70 (m)
 - 7×70
 - 490
 - No, they are 10 metres short or $490 < 500$

5 marks

NOTES:

- 1 An alternative method for the third and fourth marks is $500 \div 7$ leading to $71.4(\dots)$. The conclusion would then be No, $70 < 71.4(\dots)$.
Similarly $500 \div 70 = 7.14(\dots)$ leading to the conclusion No, $7 < 7.14(\dots)$.

12 **Ans: No, with reason**

- analyse: simplify ratio
 - interpret: reach conclusion
- 1 : 7 or 2 : 10
 - No, $7 > 5$ or $14 > 10$

2 marks

13 (a) **Ans: His scores improved, with reason**

- represent: know how to find mean • $(42+38+39+36+35) \div 5$
- analyse: add correctly • 190
- analyse: divide correctly • 38
- interpret: reach conclusion • scores improved as $38 < 41$

4 marks

NOTES:

1 Alternative marking scheme

- represent: know how mean was calculated • $\text{Total} \div 5 = 41$
- analyse: multiply correctly • 205
- analyse: add correctly • 190
- interpret: reach conclusion • scores improved as $190 < 205$

13(b) **Ans: $\frac{3}{10}$**

- analyse: state probability • $\frac{3}{10}$ or equivalent

1 mark

- 14 **Ans: Yes, they were charged 1 euro too much, or
Yes, the bill was 25·08 euros and they were charged 26·08 euros**
- analyse: add $10\cdot60 + 7\cdot80 + 1\cdot80 + 2\cdot60$ • 22·80 (euros)
 - represent: know how to calculate service charge • $22\cdot80 \div 10$
(or equivalent)
 - analyse: find bill correctly • 25·08
 - interpret: Check if they were charged too much • **Yes**, overcharged
by 1 euro

4 marks

- 15 **Ans: Market + Cabaret + City = 200
Adventure + Market + City = 247
Pirate + Cabaret + City = 239
Pirate + Market + Cabaret = 237
Pirate + City + Market = 221**

- interpret: interpret information • one correct combination
- interpret: find some possibilities • two more correct combinations
- interpret: find all possibilities • final two correct combinations

3 mark

NOTES:

- 1 Allow one addition error or omission in Total (euros) column

TOTAL MARKS 50

Interpret 15 (30%); Represent 19 (38%); Analyse 16 (32%)

Open marks 38 (76%); Fixed marks 12 (24%)