

Sample Assessment Mark Scheme

Issue 1: February 2009

Functional Skills

Functional Maths Level 2 Pilot

FUNCTIONAL SKILLS TEST (MATHEMATICS)
SAMPLE ASSESSMENT MARK SCHEME - LEVEL 2

Quest.	Process	Evidence	Mark	Notes	Attribute
Q1	Obtains the correct amounts, totals, and finds change.	Finds 1.40, 1.20, 1.00, 1.10, 1.50	1 or	eg 6.2(0)	R: decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
		Adds 1.40, 1.20, 1.00, 1.10, 4×1.50	2 or	eg 10.7(0)	
		Subtracts from 20.00	3 or	eg 20-10.7, 20-6.2	
		States correct change	4	9.30	
Total 4 marks					
Q2	Find the mean	Attempts to total amounts	1 or	4.36+11.75+2.30...	R: decide on the methods, operations and tools, including ICT, to use in a situation
		Divides total by 5	2 or	eg "18.41"÷3	
		State mean as £6.13666	3		
	Present answer	Round & correct notation: £6.14	1		I: consider the appropriateness and accuracy of the results and conclusions; choose appropriate language and forms of presentations o communicate results and conclusions
Total 4 marks					
Q3(a)	Consider the appropriateness and accuracy of the results	One reason given	1 or	eg spending patterns may change later, 15 minutes too small a time sample	I: draw conclusions in the light of the situation
		Two different reasons given	2		
Q3(b)	Makes suggestions as to mathematical process	One suggestion given for more time	1 or	eg adds the bills up for a longer or different periods of time, scale up to a whole day	I: interpret results and solutions; draw conclusions in the light of the situation
		One suggestion given for scaling to a whole day	2		
Total 4 marks					

**FUNCTIONAL SKILLS TEST (MATHEMATICS)
SAMPLE ASSESSMENT MARK SCHEME - LEVEL 2**

Quest.	Process	Evidence	Mark	Notes	Attribute	
Q4(a)	Deduces working times of four assistants	Completed diagram	1 or	Adds two assistants	I: draw conclusions in the light of the situation; choose appropriate language and forms of presentations to communicate results and conclusions	
			2	Adds four assistants		
	Ensures working patterns match criteria	Breaks correctly accounted for or no overlap in shifts beyond 3	1 or			I: draw conclusions in the light of the situation; choose appropriate language and forms of presentations to communicate results and conclusions
			2			
	Draws conclusion re 5 th assistant	Deduces start or finishing time, or adds shift to diag.	1 or	eg gives time or adds to diagram		I: interpret results and solutions; draw conclusions in the light of the situation
			2			
Q4(b)	Calculates durations of shifts	Shift durations given	1 or		A: use appropriate mathematical procedures; find results and solutions	
		Plus Ben added	2			
	Calculates wage	Total of hrs × 6.2(0) shown	1 or	eg "24"×6.2(0)	A: use appropriate mathematical procedures; find results and solutions	
		Correct answer stated, correct money notation used	2			
Total 10 marks						

FUNCTIONAL SKILLS TEST (MATHEMATICS)
SAMPLE ASSESSMENT MARK SCHEME - LEVEL 2

Quest.	Process	Evidence	Mark	Notes	Attribute
Q5(a)	Calculates volume	Substitutes values into formula	1 or	$3.14 \times 10 \times 4.5^2 \div 4$	A: use appropriate mathematical procedures; find results and solutions
		Calculates volume correctly	2	Ans in range 158-160	
Q5(b)	Converts and calculates using metric units	Divides or multiplies by a power of 10	1 or	Incorrect conversion	A: use appropriate mathematical procedures; change values and assumptions or adjust relationships to see the effects on answers in the model
		Divides or multiplies by 1000	2	Correct conversion eg $0.8 \times 1000 = 800$ or $150 \div 1000 = 0.15$	
	Selects process of calculation	One of: $\times 3$, $\times 30$	1 or		R: decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
		Both $\times 3$, $\times 30$	2 or	oe eg $\times 90$ or 13500	
	Correct use of ratio as 1/6	Ratio as 1/6 or 5/6	1 or	eg sight of 6	R: decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
		Division of 6	2	eg $\div 6$	
	Interpret & find solution by correctly rounding	Round answer up: 3 bottles	1 or	3 bottles	I: interpret results and solutions; consider the appropriateness and accuracy of the results and conclusions; choose appropriate language and forms of presentations to communicate results and conclusions
		Sight of £3.75	2	£3.75	
Total 10 marks					

FUNCTIONAL SKILLS TEST (MATHEMATICS)
SAMPLE ASSESSMENT MARK SCHEME - LEVEL 2

Quest.	Process	Evidence	Mark	Notes	Attribute	
Q6	Calculates cost of A	Process of $680 \div 4 \times 3$	1 or	$\pounds 680 \div 4 \times 3$ oe	A: use appropriate mathematical procedures; change values and assumptions or adjust relationships to see the effects on answers in the model; find results and solutions	
		Amount of $\pounds 510$	2	$\pounds 510$		
	Calculates cost of B	Process of 640×0.80	1 or	$\pounds 640 \times 0.80$ oe		
		Amount of $\pounds 512$	2	$\pounds 512$		
	Calculates cost of C	Process of 450×0.15 OR 450×1.15	1 or	$\pounds 450 \times 0.15$ oe OR $\pounds 450 \times 1.15$ oe		
		Amount of $\pounds 517.50$	2	$\pounds 517.50$		
	Makes comparisons	Deduces Shop A	1 or	Identifies shop A by any method		I: interpret results and solutions; draw conclusions in the light of the situation
		Deduces Shop C	2	Identifies shop C by any method		
Total 8 marks						

FUNCTIONAL SKILLS TEST (MATHEMATICS)
SAMPLE ASSESSMENT MARK SCHEME - LEVEL 2

Quest.	Process	Evidence	Mark	Notes	Attribute	
Q7	Selects and uses appropriate mathematical procedures for overall method, decides on the overall methods to use	Chooses a diagrammatic OR area approach	1 or	Strips drawn on diagram OR divides into two rectangles	R: recognise that a situation has aspects that can be represented using mathematics; make an initial model of a situation using suitable forms of representation	
		Chooses a correct process and finds any missing information needed for solution process.	2	eg missing length of 8 m shown, and associated with a complete process		
	Selects and uses appropriate mathematical procedures for detailed calculation leading to length of roll needed, undertakes the calculations to find results and solutions	Calculates the number of rolls OR area of two rectangles	1 or	eg 42 and 84 for rolls OR 10.5×8 and 7×6 for area	R: make an initial model of a situation using suitable forms of representation; decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use	
		Calculates the sum of the number of rolls OR combined area of the lawn	2 or	eg $42+84$ for rolls OR $(10.5 \times 8) + (7 \times 6)$ or $84+42$ for area		
		Demonstrates complete method to find the length of roll needed	3	shows complete method which should lead to 126		
	Finds results and solutions	Calculates length of roll needed	1 or	eg 126	A: use appropriate mathematical procedures; find results and solutions.	
		Attempts to find the total cost	2 or	eg $126 \times \text{£}5.35$		
		Correct solution	3	£674.10		
	Total 8 marks					
	TOTAL FOR PAPER 48 MARKS					