

# Sample Assessment Mark Scheme

## Issue 1: February 2009

Functional Skills

Functional Maths Level 1  
Pilot

**FUNCTIONAL SKILLS TEST (MATHEMATICS)**  
**SAMS MARK SCHEME - LEVEL 1**

Quest.	Process	Evidence	Mark	Notes	Attribute
Q1(a)	Order numbers	(01032), 01304, 01352, 01573	1	Correct & complete numbers	I: draw conclusions in the light of the situation
Q1(b)	Find the range	Identify £4.70, £1.10	1 or	eg 4.70-1.10	A: change values and assumptions or adjust relationships to see the effects on answers in the model; find results and solutions
		State range as £3.60	2		
Q1(c)	Find the mean	Attempts to total amounts	1 or	1.10 + 4.50...	R: decide on the methods, operations and tools, including ICT, to use in a situation
		Divides total by 4	2 or	eg 12.60÷4	
		State mean as £3.15	3		
<b>Total 6 marks</b>					
Q2(a)	Obtains the correct amounts, totals, and.	Adds £1.10, £1.50, £1.00, £1.20	1	eg 4.8(0)	R: decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
Q2(b)	Finds the change	Subtracts from 10.00 OR attempts to find difference to £10	1 or	eg 10-4.8, 5.2 repeated addition	R: decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
		States correct change	2	£5.20	
Q2(c)	Chooses appropriate coins to make up change	Chooses 3 types of coin or shows some addition of chosen coins	1 or	eg shown as coins or numbers; addition could be implied	A: use appropriate mathematical procedures; examine patterns and relationships; change values and assumptions or adjust relationships to see the effects on answers in the
		Chooses 3 types of coin and shows addition of chosen coins	2 or		
		Chooses 3 types of coin that	3	compare and check	

**FUNCTIONAL SKILLS TEST (MATHEMATICS)**  
**SAMS MARK SCHEME - LEVEL 1**

Quest.	Process	Evidence	Mark	Notes	Attribute
		total the required change of £5.40 or their amount from (a)		calculations	model
<b>Total 6 marks</b>					
Quest.	Process	Evidence	Mark	Notes	Attribute
Q3(a)	Calculates the total wage, then uses this to find the amount remaining, converting this into possible hours for Ben.	Attempts to total the hours, or multiply some hours by £6	1 or	eg 21 hrs or £27, £42, £24, £33	R: decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
		Attempts to total the hours, and multiply some hours by £6	2 or	eg "21"×6, or "£27+...£33", or £126 or £162-£126 or £36÷6	
		Finds hours as 6	3		A: use appropriate mathematical procedures; find results and solutions
Q3(b)	Plan the shift times remaining for Ben	time of shift indicated & matches 1of the criteria	1 or	eg at least 3 assistant for a period, or correct breaks	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
		time of shift indicated & matches 2 of the criteria	2 or	eg at least 3 assistant for a period, and some aspect of correct breaks	
		time of shift indicated, which fully matches the criteria	3	eg indicated by times or on the diagram	
<b>Total 6 marks</b>					

**FUNCTIONAL SKILLS TEST (MATHEMATICS)**  
**SAMS MARK SCHEME - LEVEL 1**

Quest.	Process	Evidence	Mark	Notes	Attribute
Q4	Sets up data collection table: using appropriate forms of presentation to communicate.	Table with cells	1 or	at least 3×2	I: draw conclusions in the light of the situation; consider the appropriateness and accuracy of the results and conclusions; choose appropriate language and forms of presentations to communicate results and conclusions
		Time divisions or adult/children divisions	2 or	table & times or adult/children	
		Time divisions and adult/children divisions	3 or	table & times and adult/children	
		Complete table, 8 non-overlap times, adult/children	4	Complete table, no overlapping times	
<b>Total 4 marks</b>					
Quest.	Process	Evidence	Mark	Notes	Attribute
Q5	Consider the appropriateness and accuracy of the results	One reason given	1 or	eg spending patterns may change later, five too small a sample	I: draw conclusions in the light of the situation
		Two different reasons given	2		
<b>Total 2 marks</b>					
Q6(a)	Change 3/5 to a percentage	Correct process of $3 \times 5 \div 100$ or $3/5 = ?/100$	1 or		R: decide on the methods, operations and tools, including ICT, to use in a situation
		60%	2		
Q6(b)	Selects process of calculation	1 criteria met OR attempts to find cost of 5 of each (£22.50)	1 or	eg toys in table total to 30, OR $\text{£}1.25 \times 5$ , $\text{£}1.50 \times 5$ , $\text{£}1.75 \times 5$	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; decide on the methods, operations and tools, including ICT, to use in a situation; select the mathematical information to use
		2 criteria met OR attempts to find a total for some toys and subtracts from £45	2 or	eg toys in table total to 30, costs shown less than £45 OR costs shown, change calculated	
		All 3 criteria met, with numbers and total costs	3 or	All details shown, criteria met, but with	

**FUNCTIONAL SKILLS TEST (MATHEMATICS)**  
**SAMS MARK SCHEME - LEVEL 1**

		stated, but not necessarily correct		some errors	
		All 3 criteria met, calculations complete & correct	4		A: find results and solutions
<b>Total 6 marks</b>					
Quest.	Process	Evidence	Mark	Notes	Attribute
Q7	Accurate drawing of angles and lines	Draws a rectangle/square with an angle of 90°, or a line of 2.5cm or 3cm	1 or	Tolerance: ±2°, ±2mm	R: make an initial model of a situation using suitable forms of representation
		Draws a rectangle/square with an angle of 90°, and a line of 2.5cm or 3cm	2	Tolerance: ±2°, ±2mm	
	Represent net with rectangles (and squares)	A shape made from 6 rectangles	1 or	ignore other parts, ignore proportion	I: consider the appropriateness and accuracy of the results and conclusions; choose appropriate language and forms of presentations to communicate results and conclusions
		Correct net	2	With accurate lengths (within tolerance)	
	Identify rectangular card around net; finds solution.	Rectangle drawn around net or one dimension correct	1 or	ignore proportion eg 6 or 10	
		Finds the solution	2	6 and 10 or 6×10 oe	
<b>Total 6 marks</b>					

**FUNCTIONAL SKILLS TEST (MATHEMATICS)**  
**SAMS MARK SCHEME - LEVEL 1**

Quest.	Process	Evidence	Mark	Notes	Attribute
Q8	Identify that units need to be the same	Same units either length or width	1 or	Association of 2000 & 900, 2 & 0.9, 1400 & 1000 or 1.4 & 1	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
		Same units both length and width together	2	Working in either mm or m both length & width	
	Interprets the diagram and problem, considers the appropriateness and accuracy of the results, communicates result	Adds "2"s & "0.9"s for length, or "1"s and "1.4"s for width	1 or	Accept inconsistency in units: process only NB: could be evidenced on the diagram	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
		Adds 3x"2"s & 4x"0.9"s for length, or 2x"1"s and 2x"1.4"s for width	2		
	Fit the desks into the space to match the criteria	Desks fit horizontally or vertically, matching the given criteria	1 or	9.6 or 9600 4.8 or 4800	I: interpret results and solutions; choose appropriate language and forms of presentations to communicate results and conclusions
			2	9.6m or 9600mm 4.8m or 4800mm OR 7.2m or 7200mm	
<b>Total 6 marks</b>					

**FUNCTIONAL SKILLS TEST (MATHEMATICS)**  
**SAMS MARK SCHEME - LEVEL 1**

Quest.	Process	Evidence	Mark	Notes	Attribute
Q9	Selects and uses appropriate mathematical procedures	Chooses a diagrammatic OR area approach	1 or	Strips/squares drawn on diagram OR divides into two rectangles	A: use appropriate mathematical procedures; examine patterns and relationships; change values and assumptions or adjust relationships to see the effects on answers in the model; find results and solutions
		Associates strips or squares with square tile, OR starts to find areas	2 or	Strips/squares of correct width, OR area calculations (2 dimensions)	
		Chooses a correct process and finds any missing information needed for solution process	3	eg missing length of 400 cm shown, and associated with a complete process shown	
	Finds results and solutions	Diagram: complete width or length considered; Area: at least one area calculation shown.	1 or	Diagram: eg $800 \div 40 = 20$ strips; Area: eg $1600 \times 800$	A: use appropriate mathematical procedures; examine patterns and relationships; change values and assumptions or adjust relationships to see the effects on answers in the model; find results and solutions
		Complete method shown: Diagram by division of whole diagram, OR area by considering correct dimensions of divided diagram and division by area of tile	2 or	Diagram: all lengths/strips considered, attempt to add squares. Area: both areas added eg $[(1600 \times 800) + (400 \times 400)] \div [40 \times 40]$ or such as $(800 \div 40) \times (1600 \div 40) + (400 \div 40) + (400 \div 40)$ .	
		Correct solution	3	900 tiles	
<b>Total 6 marks</b>					
<b>TOTAL FOR PAPER 48 MARKS</b>					