

## **General Marking Guidance Mathematics**

- If a learner has crossed out a response to a question, the work should still be marked unless the learner has replaced it with an alternative answer.
- Markers should apply the mark scheme consistently across all papers marked.
- Markers should mark according to the mark scheme and should apply it positively awarding full marks where the answer meets the mark scheme.
- Where the mark scheme allows a mark for 'any (other) valid response', the marker should judge the response's merits based on the information provided in the assessment materials.
- Where the marker is unsure of how to apply the mark scheme, guidance must be sought from the Principal Examiner.
- Where the mark scheme has responses in brackets – (£) 5.00, the learner will gain the mark whether or not the information within the brackets is present or not as long as the answer is correct.
- Some answers allow follow through marks where the learner has found an incorrect answer in a previous part of the task. If this is the case, the marker must check that the learner's answers are correct and should apply the format of the mark scheme to the learner's response.

The mark scheme is a guide of possible answers that can be accepted, however, if the candidate has an alternative working out system to arrive at the correct answer this will also be accepted and marked accordingly

### Assessment Guidelines

This assessment covers the whole of the Functional Skills standards and a sample of the coverage and range.

Functional Skills Standard / Performance	Functional Skills Coverage and Range	
<p><b>Representing 30-40%</b>            Understand routine and non-routine problems in familiar and unfamiliar contexts and situations.</p> <p>Identify the situation or problems and identify the mathematical methods needed to solve them.</p> <p>Choose from a range of mathematics to find solutions.</p> <p><b>Analysing 30-40%</b>            Apply a range of mathematics to find solutions.</p> <p>Use appropriate checking procedures and evaluate their effectiveness at each stage.</p> <p><b>Interpreting 30-40%</b>            Interpret and communicate solutions to multistage practical problems in familiar and unfamiliar contexts and situations.</p> <p>Draw conclusions and provide mathematical justifications</p>	Understand and use positive and negative numbers of any size in practical contexts	✓
	Carry out calculations with numbers of any size in practical contexts, to a given number of decimal places	✓
	Understand, use and calculate ratio and proportion, including problems involving scale	✓
	Understand and use equivalences between fractions, decimals and percentages	✓
	Understand and use simple formulae and equations involving one- or two-step operations	✓
	Recognize and use 2D representations of 3D objects	✓
	Find area, perimeter and volume of common shapes	✓
	Use, convert and calculate using metric and, where appropriate, imperial measures	✓
	Collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate	✓
	Use and interpret statistical measures, tables and diagrams for discrete and continuous data, using information and communication technology (ICT) where appropriate	✓
	Use statistical methods to investigate situations	✓
	Use probability to assess the likelihood of an outcome	✓

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 1 Q1	1 or	Starts to work with costs $54.6 \times 2 = 109.2$ or $32.2 \times 3 = 96.6$ or items e.g. $34.65 + 10.50 = 45.15$ or onto 40 e.g. $40 + 34.65 = 74.65$ or $288.15 - 40 = 248.15$ adds 2 adds 1 item		R	B
	2 or	Continues working with costs $+ 96.6 + 45.15 = 250.95$ or onto 40 $54.6 + 54.6 = 194.35$ or e.g. $248.15 - 10.5 - 34.65 = 203$ 109.2 adds 3 items e.g. $74.65 + 10.5 +$ subtracts 2 items from 248.15		A	E
	3	Completes working with cost $288.15 - 250.95 = 37.2$ or items onto 40 e.g. $194.35 + 32.2 \times 3 = 290.95$ or at least 4 items from 248.15 $- 54.6 - 32.2 - 32.2 - 32.2 = -2.8$ e.g. adds all subtracts e.g. $203 - 54.6$	1 mark as candidate has processed that the saving 40 + total cost at Brooklands is more than 288.15 which means they can't have saved £40	A	D
	1	Makes decision and £37.20 saved or less than £40 or more than £288.15 or £2.80 e.g. No No and £2.80 No and £290.95 is No and saves £40 -	Answer must be NO	I	K
	<b>Total marks 4</b>				<b>R = 1</b> <b>A = 1</b> <b>I = 1</b>

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 1 Q2	1 or	Works with 20% e.g. $870 \div 5$ or $0.2 \times 870$		R	C
	2	Gives a correct answer with correct units £174	1 mark for correct amount and correct money unit	I	G
	1	Shows a check of their working using reverse process or alternative method e.g. $174 \times 5 = 870$ or $10\% \text{ of } 870 = 87$ $20\% = 2 \times 87 = 174$		A	L
	<b>Total Marks 3</b>			<b>R = 1</b> <b>A = 1</b> <b>I = 1</b>	

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
<b>Task 1</b> <b>Q3a</b>	1	Works with units of time e.g. 90 minutes or 5 $\frac{3}{4}$ hours or $\frac{1}{3}$ hour or $\frac{3}{4}$ hour		R	G
	1 or	Starts to work with plan e.g. 4pm – 7.30 am = 8 hrs 30 mins or adds at least 2 times onto 7.30 am 7.30 am + 1 hr 30 mins + 5 hrs 45 mins = 2.45pm or Subtracts at least 2 times from 4 pm 4 pm – 45 – 20 = 2.55 pm or Adds all times for events 1 hr 30 mins + 5 hrs 45 mins + 20 + 20 + 45 = 8 hrs 40mins		R	G
	2	Completes process to work with time e.g. 8 hrs 30 mins and 8 hrs 40 mins or 2.45 pm + 20 + 20 + 45 = 4:10 pm or 2.55 pm – 20 – 5 hrs 45 mins – 1 hr 30 mins = 7:20 am		A	H
	1	Makes decision with justification e.g. No and 8 hrs 30 mins and 8 hrs 40 mins or No and arrive at 4:10 pm or No and need to get up at 7:20 am	1 mark for correct decision with fully correct working	I	K
	<b>Total Marks 4</b>			<b>R = 2</b> <b>A = 1</b> <b>I = 1</b>	

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 1 Q3b	1 or	Works with ratio e.g. $1 + 4 = 5$ or concentrate is $1/5^{\text{th}}$ of screen wash		R	A
	2	Completes process to work with ratio e.g. $2 \text{ l} \div 5 = 0.4$ or $2000 \div 5 = 400$		A	E
	1	Correct answer 0.4 litres or 400 millilitres	1 mark for correct amount and correct unit of capacity	I	L
	<b>Total Marks 3</b>			<b>R = 1</b> <b>A = 1</b> <b>I = 1</b>	

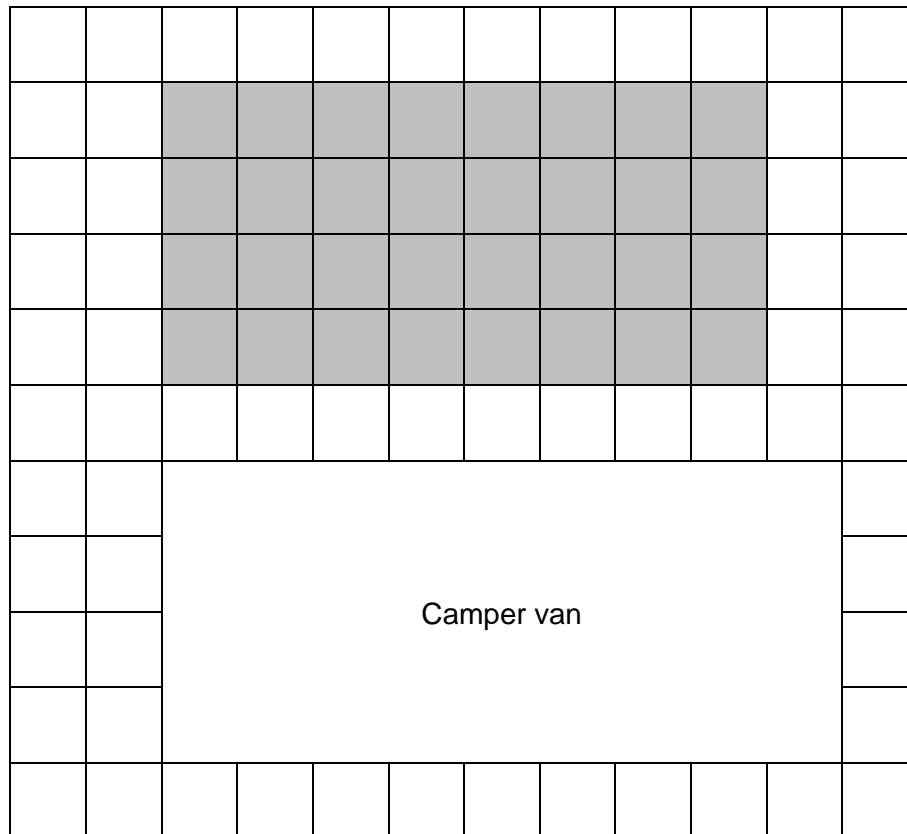
Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
<b>Task 1 Q3c</b>	1 or	Starts to work with cost $3 \times 12 = 36$ or $10 + (3 \times 12) = 46$		R	B
	2 or	Develops process to work with cost Adds cost of any 3 items e.g. $8.50 + 4.25 + 1.95 = 14.70$ or $8.50 \times 3 = 25.50$ or $4.25 \times 3 = 12.75$ or Subtracts cost of any 3 items from 46 e.g. $46 - 7.95 - 4.25 - 1.95 = 31.85$	1 mark for cost of adding cost of fish and chips, cake and soft drink included	A	H
	3 or	Continues process Finds most expensive meal combination for 3 people e.g. $25.50 + 12.75 + 2 \times 2.85 + 1.95 = 45.90$ or Starts to subtract most expensive meal combination for 3 people $46 - 25.50 = 20.50$ or $46 - 12.75 = 33.25$ or $46 - 2.85 \times 2 - 1.95 = 38.35$		A	G
	4	Completes process e.g. $45.90 - 36 = 9.90$ or $46 - 25.50 - 12.75 - 2.85 \times 2 - 1.95 = 0.10$		I	H
	1	Makes decision No and £9.90 or No and 10p short	1 mark for correct decision with fully correct working – including units	I	K
	<b>Total marks 12</b>			<b>R = 4 A = 4 I = 6</b>	

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 1 Q4a	1 or	Starts to work with perimeter or measurements e.g. $5 + 6 = 11$ or $5 \times 2 = 10$ or $6 \times 2 = 12$ or $8 \times 3 = 24$ or $6 - 1 = 5$ or 6m side uses 2 wind breakers or 5m side uses 1 wind breaker and 2m left over or Counts at least 2 wind breakers positioned correctly on perimeter of diagram		R	D
	2	Finishes working with perimeter or measurements e.g. $11 \times 2 - 1 = 21$ and $8 \times 3 = 24$ or $24 - 6 - 5 - 5 - 5 = 3$ or counts 7 windbreakers using 21m of perimeter		A	I
	1	Makes decision: <b>No</b> and needs to use 7 windbreakers	1 mark for correct decision with fully correct working. No follow through	I	K
	<b>Total Marks 3</b>			<b>R = 1 A = 1 I = 1</b>	



Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 1 Q4b(i)	1	Works with units e.g. 2m = 200cm or 2.5m = 250cm or 3m = 300cm or 4m = 400cm	1 mark for conversion seen at any point of working or implied on grid	R	A
	1	Chooses size of gazebo 4m x 2m	Correct answer only – as need to select the largest size to fit	I	G
Task 1 4b(ii)	1 or	Starts to draw gazebo on plan Draws a square or rectangle of any size exactly 1 grid square away from camper van or Draws a square with side 4 grid squares, 5 grid squares or 6 grid squares joined to camper van or 2 grid squares away from camper van or Draws a rectangle 6 grid squares by 4 grid squares or 8 grid squares by 4 grid squares joined to camper van or 2 grid squares away from camper van		R	I
	2	Draws gazebo correctly on plan  Draws a square with side 5 grid squares or rectangle 8 grid squares by 4 grid squares 1 grid square away from camper van		A	K
	<b>Total Marks 7</b>			<b>R = 3 A = 2 I = 2</b>	

Exemplar grid Question 4b(ii)



Key: 1 square on the grid represents an area 50 cm by 50 cm.

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 2 Q1a	1	Interprets likelihood Ticks Very likely it will be sunny tomorrow		R	C
Task 2 Q1b	1	Works with units 4000g or 1500g or 0.8kg or 0.6kg or 0.9kg or 3.8kg	1 mark for conversion seen at any point of working	R	C
	1	Works with total weight e.g. $1500 + 800 + 600 + 900 = 3800$ or equivalent or $4 - 1.5 - 0.8 - 0.6 - 0.9 = 0.2$ or equivalent		A	G
	1	Makes decision Yes and 3800g or 3.8kg or Yes and 200g under or 0.2kg under	1 mark for correct decision with fully correct working	I	K
	<b>Total marks 4</b>			<b>R = 2</b> <b>A = 1</b> <b>I = 1</b>	

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
Task 2 Q2	1 or	Starts to work with mean e.g. $4.2 + 2.3 + 1.8 + 4.7 + 4 + 2.5 = 19.5$		R	C  H  K  L
	2	Develops process to find mean e.g. $19.5 \div 6 = 3.25$		A	
	1	Makes decision Yes and 3.25	1 mark for correct decision with fully correct working	I	
	1	Shows a check of their working using reverse process or alternative method e.g. $3.25 \times 6 = 19.5$ or $4 + 2 + 2 + 5 + 4 + 3 = 20$		A	
	<b>Total marks 4</b>			<b>R = 1</b> <b>A = 2</b> <b>I = 1</b>	

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
<b>Task 3 Q1</b>	1 or	Works with rule $32 \times 7.8 = 249.6$ or $32 \times 3 = 96$ or $32 \div 4 = 8$ or $187.2 \times 4 = 748.8$ or $187.2 \div 3 = 62.4$ or $187.2 \div 7.8 = 24$		R	F
	2 or	Finishes using rule $249.6 \times 3 \div 4 = 187.2$ or $96 \times 7.8 \div 4 = 187.2$ or $8 \times 7.8 \times 3 = 187.2$ or $748.8 \div 3 \div 7.8 = 32$ or $62.4 \times 4 \div 7.8 = 32$ or $24 \div 3 \times 4 = 32$		A	F
	3	Makes decision Yes and fully correct working	1 mark for correct decision with fully correct working	I	K
	1	Shows check Reverse method or alternative method or estimation e.g. $30 \times 8 \times 3 \div 4 = 180$		A	L
	<b>Total marks 4</b>			<b>R = 1 A = 2 I = 1</b>	

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
<b>Task 3 Q2</b>	1 or	Starts to draw table e.g. 8 headings labelled child or name or 5 headings labelled activity or blank table with 40 input opportunities		R	I
	2 or	Develops table e.g. 8 headings labelled child or name and 5 headings labelled activity and less than 40 input opportunities or less than 8 headings labelled child or name and 5 headings labelled activity and 40 input opportunities or 8 headings labelled child or name and less than 5 headings labelled activity and 40 input opportunities		I	I
	3	Completes table Fully efficient table with 8 headings in leading row or column for 8 childrens' names, 5 headings in leading column or row for 5 activities and 40 input opportunities		I	I
	1	Indicates Toby's choices E.g. Toby or tick in cell for Toby and baseball, volleyball		A	K
	<b>Total marks 4</b>			<b>R = 1 A = 1 I = 1</b>	

Exemplar record sheet Question 2

Activity	F	V	T	B	W
Name					
1		Toby		Toby	
2					
3					
4					
5					
6					
7					
8					

Question	Mark Available	Acceptable Response	Comments	RAI	Coverage and range
<b>Task 3 Q3</b>	1	Labels chart correctly with a suitable title and x axis label e.g. Title includes equipment hired and last week e.g. x axis labelled Number hired	1 mark for both title and x axis label	R - 1	L
	1	Draws bar for wind surfer Bar indicates 47		I -1	L
	1	Writes statement e.g. body boards were the most popular and kayaks were the least popular last week	1 mark for statement that may or may not include relevant values	I -1	K
	<b>Total marks 3</b>			<b>R = 1 A = 0 I = 2</b>	
<b>TOTAL MARKS</b>	<b>45 MARKS</b>	Passing mark 32		<b>R=15 A=14 I=16</b>	