

Functional Skills  
**Mathematics Level 1**

**Onscreen Practice Test 2**  
Mark Scheme

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## Marking Guidance for Functional Skills Mathematics Level 1

### General

- All learners must receive the same treatment. Examiners must mark the first learner in exactly the same way as they mark the last.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded; exemplification will not be exhaustive. When examiners are in doubt regarding the application of the mark scheme, the response should be escalated to a senior examiner to review.
- Mark schemes should be applied positively. Learners must be rewarded for what they have shown they can do rather than penalised for omissions.
- 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 learner's response is not worthy of credit according to the mark scheme. If there is a wrong answer (or no answer) indicated in the answer box, always check the working in the body of the script (and on any diagrams) and award any marks appropriate from the mark scheme.
- Working is always expected. For short questions, where working may not be seen, correct answers may still be awarded full marks. For longer questions, an answer in brackets from the mark scheme seen in the body of the working, implies a correct process and the appropriate marks may be awarded.
- **Questions that specifically state that working is required:** learners who do not show working will get no marks – full details will be given in the mark scheme for each individual question.

### Applying the Mark Scheme

- The mark scheme has a column for **Process** and a column for **Evidence**. In most questions the majority of marks are awarded for the process the learner uses to reach an answer. The evidence column shows the *most likely* examples that will be seen. If the learner gives different evidence valid for the process, examiners should award the mark(s).
- If working is **crossed out and still legible**, then it should be marked, as long as it has not been replaced by alternative work.
- If there is a **choice of methods** shown, then mark the work leading to the answer given in the answer box or working box. If there is no definitive answer then marks should be awarded for the lowest scoring method shown.
- A suspected **misread**, e.g. 528 instead of 523, may still gain process marks provided the question has not been simplified. Examiners should send any instance of a suspected misread to a senior examiner to review.
- It may be appropriate to **ignore subsequent work (isw)** when the learner's additional work does not change the meaning of their answer.
- **Correct** working followed by an **incorrect decision** may be seen, showing that the learner can calculate but does not understand the functional demand of the question. The mark scheme will make clear how to mark these questions.

- **Transcription** errors occur when the learner presents a correct answer in working and writes it incorrectly on the answer box e.g. 698 in the body and 689 in the answer box; mark the better answer if clearly only a transcription error. Examiners should send any instance of transcriptions errors to a senior examiner to review.
- **Incorrect method** if it is clear from the working that the correct answer has been obtained from incorrect working, award 0 marks. Examiners must escalate the response to a senior examiner to review.
- **Follow through marks (ft)** must only be awarded when explicitly allowed in the mark scheme. Where the process uses the learner's answer from a previous step, this is clearly shown.
  - Speech marks are used to show that previously incorrect numerical work is being followed through, for example '240' means their 240 coming from a correct or set of correct processes.
  - When words are used in { } then this value does not need to come from a correct process but should be the value the learner believes to be required. The constraints on this value will be detailed in the mark scheme. For example, {volume} means the figure may not come from a correct process but is clearly the value learners believe should be used as the volume.
- Marks can usually be awarded where units are not shown. Where units are required this will be stated. For example, 5(m) indicates that the units do not have to be stated for the mark to be awarded.
- Learners may present their answers or working in many **equivalent** ways. This is denoted oe in the mark scheme. Repeated addition for multiplication and repeated subtraction for division are common alternative approaches. The mark scheme will specify the minimum required to award these marks.
- A **range** of answers is often allowed, when a range of answers is given e.g. [12.5, 13] this is the inclusive closed interval.
- **Accuracy** of figures. Accept an answer which has been rounded or truncated from the correct figure unless other guidance is given. For example, for 12.66.. accept 12.6, 12.7, 12.66, 12.67 or any other more accurate figure.
- **Probability** answers must be given as a fraction, percentage or decimal. If a learner gives a decimal equivalent to a probability, this should be written to at least 2 decimal places (unless tenths). If a learner gives the answer as a percentage a % must be used. Incorrect notation should lose the accuracy marks but be awarded any implied process marks. If a probability fraction is given then cancelled incorrectly, ignore the incorrectly cancelled answer.
- **Graphs.** A linear scale must be linear in the range where data is plotted and use consistent intervals. The scale may not start at 0 and not all intervals must be labelled. The minimum requirements will be given, but examiners should give credit if a title is given which makes the label obvious.

**Section A (Non-Calculator)**

Question	Process	Mark	Mark Grid	Evidence
<b>Q1(a)</b>	Accurate figure	1	A	20
<b>Q1(b)</b>	Accurate figure	1	B	7.3
<b>Q1(c)</b>	Correct order	1	C	0.415, 0.5, 0.79
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q2</b>	Begins to work with dimensions	1 or	A	$2 \times 4 (=8)$ <b>OR</b> $24 \div 2 (=12)$ <b>OR</b> $24 \div 4 (=6)$
	Full process to find missing length	2 or	AB	$24 \div '8' (=3)$ <b>OR</b> $'12' \div 4 (=3)$ <b>OR</b> $'6' \div 2 (=3)$
	Accurate figure with supportive working	3	ABC	3 NB Working must be shown
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q3</b>	Works in consistent units	1	A	e.g. 45 (mins) <b>or</b> 120 (mins) <b>or</b> 30 (mins) May be seen or implied by subsequent working
	Begins to work with time	1 or	B	e.g. adds 2 times together <b>OR</b> Adds 1 time to 7:00
	Full process to find finish time	2 or	BC	e.g. 7:00 + '45' (mins) + 20 (mins) + '30' (mins) + 2 (hrs) (=10:35)  NB at least 2 correct time conversions must be used for this mark
	Accurate figure	3	BCD	10:35 (am)
<b>Total marks for question</b>		<b>4</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q4</b>	Process to find a missing length	1	A	$17 - 10 (=7)$ <b>OR</b> $9 + 4.5 + 1.5 (=15)$
	Full process to find perimeter	1 or	B	$17 + 1.5 + '7' + 4.5 + '7' + 9 + 17 + '15' (=78)$ oe
	Accurate figure	2	BC	78
	Correct units selected	1	D	metres
<b>Total marks for question</b>		<b>4</b>		

**Section B (Calculator)**

Question	Process	Mark	Mark Grid	Evidence
<b>Q5</b>	Begins to work with ratio	1 or	A	e.g. $(1 + 4) (=5)$ <b>OR</b> $2.6 \times 4 (=10.4)$ <b>OR</b> $12.5 \div 2.6 (=4.80..)$
	Full process to find figures to compare	2 or	AB	e.g. $12.5 \div '5' (=2.5)$ <b>OR</b> $'10.4' + 2.6 (=13)$ <b>OR</b> $(1 + 4) (=5)$ <b>and</b> $12.5 \div 2.6 (=4.80..)$
	Valid decision with accurate figure	3	ABC	e.g. No <b>AND</b> 2.5 (litres) <b>OR</b> No <b>AND</b> 13 (litres) <b>OR</b> No <b>AND</b> 5 <b>and</b> 4.8(0...)
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q6(a)</b>	Process to work with percentage discount	1 or	A	$1.40 \times 0.3 (=0.42)$ oe <b>OR</b> $(100 - 30) \div 100 (=0.7)$
	Full process to find discounted cost of a bottle	2 or	AB	$1.40 - '0.42' (=0.98)$ oe <b>OR</b> $1.40 \times '0.7' (=0.98)$
	Valid decision with accurate figure	3	ABC	Yes <b>AND</b> (£)0.98 <b>OR</b> Yes <b>AND</b> 98p
<b>Q6(b)</b>	Valid check using a reverse calculation	1	D	e.g. $0.42 + 0.98 = 1.4(0)$
<b>Total marks for question</b>		<b>4</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q7</b>	Begins process to find mean	1 or	A	$6801 + 9723 + 9839 + 5577 + 6660 + 7050 + 8390 (=54040)$
	Full process to find mean	2	AB	$'54040' \div 7 (=7720)$
	Begins to work with formula	1 or	C	$\{\text{mean}\} \times 0.75 (=5790)$
	Full process to use formula	2 or	CD	$\{\text{mean}\} \times 0.75 \div 1000 (=5.79)$
	Accurate figure to 1 decimal place	3	CDE	5.8  $\{\text{mean}\}$ to be a calculated figure from the data given
<b>Total marks for question</b>		<b>5</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q8</b>	Begins process to work with fraction	1 or	A	$30 \div 5 (=6)$
	Full process to find figure to compare	2 or	AB	$'6' \times 3 (=18)$
	Valid decision and accurate figure	3	ABC	No <b>AND</b> 18
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q9</b>	Identifies correct label	1	A	36 to 47
	Begins to populate table	1 or	B	Correct tallies or frequencies for at least two groups
	Correct frequencies shown	2	BC	5, 7, 3, 5 Condone incorrect or incomplete tallies
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q10(a)</b>	Accurate figure	1	A	100
<b>Q10(b)</b>	Works in consistent units	1	B	e.g. 1000 (g) <b>or</b> 500 (g)
	Begins to work with proportion	1 or	C	e.g. $48 \div 12 (=4)$ <b>OR</b> '500' $\div 115 (=4.34..)$
	Full process to find figures to compare	2 or	CD	e.g. '4' $\times 115 (=460)$ <b>oe OR</b> $48 \div 12 (=4)$ <b>and</b> '500' $\div 115 (=4.34..)$ <b>OR</b> '500' $\div$ '4' (=125)
	Valid decision and accurate figures	3	CDE	e.g. Yes <b>AND</b> 460 (g and 500 g) <b>OR</b> Yes <b>AND</b> 4 (required batches) <b>and</b> 4.3(4.. possible batches) <b>OR</b> Yes <b>AND</b> 125 (g available per batch)
<b>Q10(c)</b>	Valid check using estimation	1	F	e.g. $4 \times 120 = 480$ <b>or</b> $4 \times 100 = 400$
<b>Total marks for question</b>		<b>6</b>		

Question	Process	Mark	Mark Grid	Evidence
Q11(a)	Selects correct likelihood	1	A	Impossible selected
Q11(b)	Begins to work with probability	1 or	B	$\frac{a}{4+3+5}$ where $a < '12'$ <b>OR</b> $\frac{5}{b}$ where $b > 5$
	Accurate probability	2	BC	$\frac{5}{12}$
Total marks for question		3		

Question	Process	Mark	Mark Grid	Evidence
Q12	One correct equivalent seen	1	A	e.g. 0.35 <b>or</b> 80 (%) <b>or</b> 0.4 <b>or</b> 40 (%) <b>or</b> 0.25 <b>or</b> 25 (%) May be seen or implied by subsequent working
	Process to find range using 'largest' subtract 'smallest'	1 or	B	e.g. $0.8 - '0.25' (=0.55)$ <b>OR</b> $'80' - '25' (=55)$
	Accurate figure	2	BC	0.55 <b>or</b> 55 % oe
Total marks for question		3		

Question	Process	Mark	Mark Grid	Evidence
Q13(a)	Accurate figure	1	A	90
Q13(b)	Begins to work with pie chart	1 or	B	e.g. $360 \div 60 (=6)$ <b>OR</b> $96 \div 16 (=6)$
	Process to calculate one angle size	2 or	BC	e.g. $'6' \times 35 (=210)$ <b>OR</b> $'6' \times 9 (=54)$
	Fully correct pie chart	3	BCD	210° drawn, banana <b>and</b> 54° drawn, chocolate
<b>Total marks for question</b>		<b>4</b>		

Question	Process	Mark	Mark Grid	Evidence
Q14	Writes down correct figure or works with millions	1	A	500 000 May be seen or implied in subsequent working
	Process to find percentage of amount	1 or	B	$'500000' \times 65 \div 100 (=325000)$ oe
	Accurate figure	2	BC	325 000
<b>Total marks for question</b>		<b>3</b>		

Question	Process	Mark	Mark Grid	Evidence
<b>Q15</b>	Process to find area	1	A	$12 \times 9 (=108)$
	Begins to work with special offer	1 or	B	e.g. $14.54 \div 2 (=7.27)$ <b>OR</b> '108' $\div 2 (=54)$
	Develops solution	2 or	BC	e.g. '108' $\div 2 (=54)$ <b>and</b> $14.54 \div 2 (=7.27)$ <b>OR</b> '54' $\times 14.54 (=785.16)$ <b>OR</b> '7.27' $+ 14.54 (=21.81)$
	Full process to find figures to compare	3 or	BCD	e.g. '54' $\times 14.54 + '54' \times '7.27' (= 1177.74)$
	Valid decision with accurate figure from supportive working	4	BCDE	e.g. Yes <b>AND</b> (£) 1177.74  NB This question requires working shown
<b>Total marks for question</b>		<b>5</b>		