



FUNCTIONAL SKILLS MATHS & ENGLISH

LEVEL 1 & 2 EXAMS

WHO WE ARE

Leading training company for 26 years

Intech Centre is an established training provider based in Islington, London, with over 26 years of experience in delivering education, employability and digital skills programmes.

Intech Centre specialises in **Functional Skills English and Maths Level 1 & 2**, helping learners successfully pass Level 1 and Level 2 Functional Skills exams required for university entry, apprenticeships, teacher training, nursing courses and many other professional pathways.

Thousands of learners have used our resources, courses and exam services to achieve nationally recognised qualifications.

[BOOK NOW](#)[LEARN MORE](#)

** The materials in this document are the intellectual property of the relevant awarding organisation and are shared for educational and revision purposes only. Intech Centre does not claim ownership of these materials and all rights remain with the respective awarding body.*

SERVICES

Courses

- Functional Skills Maths
- Functional Skills English

Tutoring

- Functional Skills Maths & English Exam Tutoring

EXAMS

- ➔ Functional Skills **Maths** Level 1 or 2 Exam **in London**
- ➔ Functional Skills **English** Level 1 or 2 Exam **in London**
- ➔ **Online** Functional Skills **Maths** Level 1 or 2 Exam
- ➔ **Online** Functional Skills **English** Level 1 or 2 Exam



www.intechcentre.com



362 Essex Road
Islington N1 3PD



020 7354 5655

BOOK YOUR FUNCTIONAL SKILLS EXAM NOW!

Level 2 Functional Skills Mathematics

Sample paper 2

Mark scheme

VERSION 1.1



Level 2
Sample 2

Guidance notes for Mark Schemes

Level 1 and Level 2

The mark scheme has been carefully constructed to avoid penalising candidates repeatedly for similar errors.

1) The principle of follow through applies throughout unless otherwise stated. This allows the candidates to gain credit for subsequent correct calculation based on a previous incorrect answer. There is no follow-through between questions, but may be in multi-stage calculations within a question.

2) Units or numbers shown in brackets on the mark scheme are not required for the awarding of mark/s on the candidate's paper. However, if a candidate states units they must be correct:

eg 24(cm) means accept 24cm or 24 but not 24m

eg (£)72.5(0) means accept £72.50 or £72.5 or 72.50 or 72.5

3) Correct money format is expected in final answers unless otherwise indicated eg by brackets ie pounds must have two decimal places or no decimal places unless otherwise stated.

eg (£)5.00 or (£)5 not (£)5.0

eg (£)72.50 not (£)72.5

eg (£)37.43 not (£)37.432

4) URT means unrounded, rounded or truncated; the underlining defines the acceptable limit of approximation:

eg 860. 8652 URT (U is the unrounded version)

the following are acceptable: 860 (T) or 861 (R) 860.8 (T) or 860.9 (R) or 860.86 (T) or 860.87 (R) or 860.865 (R) or 860.8652 (U) but not eg 900.

The 3rd and 4th columns of the mark schemes show the marks to be given for specific responses. Marks in bold are for fully correct answers. Where full marks are not achieved award the marks that correspond to the responses given in the grey rows below.

Where marks are awarded for a *complete correct method with one calculation error* give the mark for a substantially correct solution with a single accuracy error or single (or consistent) early rounding, but not with a method error.

Maths Level 2 Sample paper 2: Section 1 – CALCULATOR NOT PERMITTED

Examiners should accept correct answers given as words, including misspelt variants. Candidates must not lose marks for incorrect spelling.

Question	Total marks	Marks	Marks awarded for	Item type	Subject content statement reference
1	1	1	1/6	UPK Short answer fixed response	SCS8 [1]
2	1	1	D	UPK MC fixed response	SCS4 [1]
3	1	1	45(°)	UPK Short answer fixed response	SCS22 [1]
4	1	1	36	UPK Short answer fixed response	SCS3 [1]
5	1	1	- 25	UPK Short answer fixed response	SCS12 [1]
6	1	1	1540(cm ³) see below for example workings	UPK Short answer fixed response	SCS17 [1]
7	1	1	C	UPK MC fixed response	SCS7 [1]
8	1	1	90	UPK Short answer fixed response	SCS10 [1]
9	1	1	72(mm)	UPK Short answer fixed response	SCS16 [1]
10	1	1	1/8	UPK Short answer fixed response	SCS26 [1]
11	1	1	No AND (£)15.30 (extra) seen	Problem solving Short answer fixed response	SCS15 [1]
12	2	2	Yes AND 128kph or 81.25mph seen	Problem solving short answer fixed response	SCS14 [1] SCS15 [1]
		1	method for converting mph to kph eg $80 \div \frac{5}{8}$ or method for converting kph to mph eg $130 \times \frac{5}{8}$		
13	2	2	30 000(cm ³) (from 25 x 30 x 40)	Problem solving Short answer fixed response	SCS2 [1] SCS17 [1]
		1	volume derived from other approximated measurements eg $20 \times 30 \times 40 = 24\ 000(\text{cm}^3)$ or $28\ 536(\text{cm}^3)$ derived from actual measurements		
Total for Section 1					15 marks

Example workings for S1Q6

$$V = \pi r^2 h$$

$$V = \frac{22}{7} \times 49 \times 10$$

$$V = \frac{22}{7} \times 497 \times 10$$

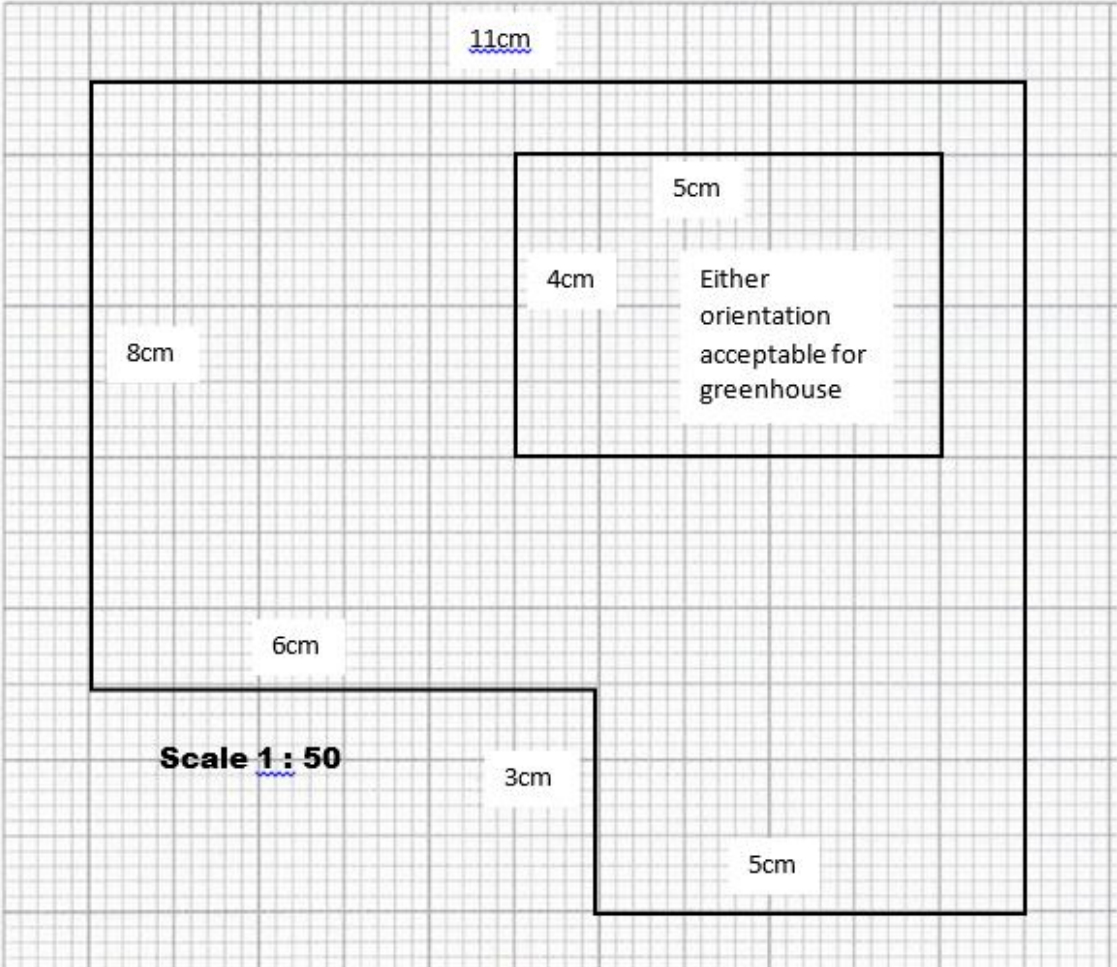
$$V = 1540$$

Maths Level 2 Sample 2 paper: Section 2 – CALCULATOR PERMITTED

Examiners should accept correct answers given as words, including misspelt variants. Candidates must not lose marks for incorrect spelling.

Question	Total marks	Marks	Marks awarded for	Item type	Subject content statement reference
1	1	1	9.68	UPK Short answer fixed response	SCS2 [1]
2	1	1	0.034	UPK Short answer fixed response	SCS8 [1]
3	1	1	C	UPK MC fixed response	SCS21 [1]
4	1	1	D	UPK MC fixed response	SCS14 [1]
5	1	1	0.4	UPK Short answer fixed response	SCS27 [1]
6	1	1	No AND suitable explanation eg data skewed to left eg the right hand side is bigger than the left eg more than half runners have times > 4hrs	Problem solving Short answer open response	CHECK [1] (SCS24)
7	3	3	YES AND suitable explanation with reference to (£)30 (for original price) AND (£)15 (for half price) AND (£)15.75 (for the new price) accept 75p for the difference equivalent to (£)15 and (£)15.75 Accept general explanation showing that a 25% reduction on 70% price gives 52.5% price	Problem solving Short answer open response	SCS13 [3]
		2	(£)30 or (£)15 and (£)15.75		
		1	(£)30 or (£)15 or (£)15.750		
8	4	4	197.82(cm ³) URT	Problem solving Short answer open response	SCS3 [1] SCS17 [3]
		3	56.52 (cm ³) (for hemisphere) and 141.3(cm ³) (for cylinder) or complete correct method with one calculation or rounding error		
		2	56.52 (cm ³) for hemisphere		
		1	141.3(cm ³) for cylinder or correct substitution in to formula for hemisphere		
9	4	2	full outline ie six sides drawn ± ½ small square to suitable scale, scale shown	Problem solving Short answer open response	SCS18 [3] SCS20 [1]
		1	at least four lines drawn correctly to scale ± ½ small square or six side drawn to scale, but no scale shown		
		2	outline of greenhouse drawn to scale ± ½ small square in correct position ie in top right hand corner 50cm from each edge of the garden		
		1	outline of greenhouse drawn to scale anywhere ± ½ small square		

Example plan for S2Q9 (drawn to scale 1 : 50, other scaling acceptable)



10	4	4	88p or £0.88	Problem solving Short answer open response	SCS11 [2] SCS13 [2]
		3	88 or 0.88 without units or £132 for ingredients plus charity money \div 150		
		2	value for their ingredients plus charity money \div 150 or £132 for ingredients plus charity money		
		1	25 (packs of buns) and 19 (tins of hotdogs) or value for their ingredient plus charity money or \div 150 seen or \div 8 and \div 6 seen		
11	4	3	67.28(g) for A	Problem solving Short answer open response	SCS24 [4]
		2	6728 for $\sum fx$ and 100 for n or complete correct method with one calculation or rounding error		
		1	6728 for $\sum fx$ or 100 for n or any three values for fx ie three of 1408 1782 1768 1050 720 or any three values for mid points ie three of 64 66 68 70 72		
		1	supplier A AND explanation eg 67.28 > 66.5g eg supplier B 0.78g less (on average)		
12	4	3	(£)5202 for A AND (£)5157.50 for B	Problem solving Short answer open response	SCS13 [4]
		2	(£)5202 or (£)5157.50 or complete correct method with one calculation or rounding error		
		1	(£)5100 for A (for first 6 months) or method for one percentage seen eg $\times 1.0315$ or $\times 2/100$		
		1	Bank A and explanation eg (£)5202 > (£)5157.50 eg Bank B interest is £44.50 less (than Bank A)		

13	5	2	values for two percentage changes ie 50% decrease (chaffinch) and 0% change (sparrow)	Problem solving Short answer open response	SCS5 [1] SCS6 [2] SCS28 [2]																					
		1	value for one percentage change																							
		1	two trend lines drawn accept lines drawn with approximately the same number of plots either side of the line																							
		2	two valid comments one referring to the trend for chaffinch and one referring to the trend for sparrow																							
		1	one valid comment referring to one of the trends or both correlations stated without reference to context																							
<p style="text-align: center;">Data from garden bird survey</p> <table border="1" style="margin: 10px auto;"> <caption>Data from garden bird survey</caption> <thead> <tr> <th>Year</th> <th>Chaffinch (Average)</th> <th>Sparrow (Average)</th> </tr> </thead> <tbody> <tr><td>2008</td><td>4</td><td>5</td></tr> <tr><td>2010</td><td>4</td><td>5</td></tr> <tr><td>2012</td><td>3.5</td><td>4.5</td></tr> <tr><td>2014</td><td>3</td><td>5</td></tr> <tr><td>2016</td><td>2.5</td><td>4.5</td></tr> <tr><td>2018</td><td>2</td><td>5</td></tr> </tbody> </table>						Year	Chaffinch (Average)	Sparrow (Average)	2008	4	5	2010	4	5	2012	3.5	4.5	2014	3	5	2016	2.5	4.5	2018	2	5
Year	Chaffinch (Average)	Sparrow (Average)																								
2008	4	5																								
2010	4	5																								
2012	3.5	4.5																								
2014	3	5																								
2016	2.5	4.5																								
2018	2	5																								
14	5	2	91(Dave) AND 90(Elaine) for medians <i>do not accept values for means</i>	Problem solving Short answer open response	SCS23 [2] SCS25 [3]																					
		1	91(Dave) or 90(Elaine) for medians																							
		1	54 (Dave) and 22 (Elaine) for ranges																							
		2	a valid justification for choice of player with reference to median scores (good scoring) AND range (consistency) eg Elaine more consistent 22 < 54 and median score 90 similar to Dave (91) <i>note: accept justification based on their results (including calculation of mean)</i>																							
		1	a valid justification for choice of player with reference to median scores (good scoring) or range (consistency)																							

15	6	6	correct time for leaving consistent with a distance from 12 cm to 15 cm measured on map, eg 4:21pm or 4:20pm or 16:21 or 16:20	Problem solving Short answer open response	SCS15 [3] SCS18 [2] SCS19 [1]																																																
		If 6 marks not achieved apply the following mark scheme below																																																			
		3	value for distance travelled in km ie value between 3km (from 12cm measured) and 3.75km (from 15cm measured)																																																		
		2	value for distance travelled in cm ie value between 300 000cm (from 12cm measured) and 375 000 cm (from 15cm measured) or their incorrect distance converted to correct kilometres																																																		
		1	distance between 12cm and 15cm for their map measurement or their incorrect distance converted to correct centimetres or method for converting cm to km eg $\div 1000$ and $\div 100$ or $\div 100000$ or $\times 25\ 000$ seen to calculate scale																																																		
		2	value for time for journey in minutes																																																		
		1	method for time taken eg their distance $\div 5$ kph or $\times 60$ to convert decimal hours into minutes																																																		
		1	5pm less their time for journey																																																		
Sample results based on distances of 12cm to 15cm																																																					
<table border="1"> <tr> <td>Distance on map (cm)</td> <td>12</td> <td>12.5</td> <td>13</td> <td>13.5</td> <td>14</td> <td>14.5</td> <td>15</td> </tr> <tr> <td>Convert to cm</td> <td>300000</td> <td>312500</td> <td>325000</td> <td>337500</td> <td>350000</td> <td>362500</td> <td>375000</td> </tr> <tr> <td>Convert to km</td> <td>3</td> <td>3.125</td> <td>3.25</td> <td>3.375</td> <td>3.5</td> <td>3.625</td> <td>3.75</td> </tr> <tr> <td>Journey time hrs</td> <td>0.6</td> <td>0.625</td> <td>0.65</td> <td>0.675</td> <td>0.7</td> <td>0.725</td> <td>0.75</td> </tr> <tr> <td>Journey time mins</td> <td>36</td> <td>37.5</td> <td>39</td> <td>40.5</td> <td>42</td> <td>43.5</td> <td>45</td> </tr> <tr> <td>Time of arrival</td> <td>4:24 PM</td> <td>4:23 or 4:22PM</td> <td>4:21 PM</td> <td>4:20 or 4:19PM</td> <td>4:18 PM</td> <td>4:17 or 4:16PM</td> <td>4:15 PM</td> </tr> </table>						Distance on map (cm)	12	12.5	13	13.5	14	14.5	15	Convert to cm	300000	312500	325000	337500	350000	362500	375000	Convert to km	3	3.125	3.25	3.375	3.5	3.625	3.75	Journey time hrs	0.6	0.625	0.65	0.675	0.7	0.725	0.75	Journey time mins	36	37.5	39	40.5	42	43.5	45	Time of arrival	4:24 PM	4:23 or 4:22PM	4:21 PM	4:20 or 4:19PM	4:18 PM	4:17 or 4:16PM	4:15 PM
Distance on map (cm)	12	12.5	13	13.5	14	14.5	15																																														
Convert to cm	300000	312500	325000	337500	350000	362500	375000																																														
Convert to km	3	3.125	3.25	3.375	3.5	3.625	3.75																																														
Journey time hrs	0.6	0.625	0.65	0.675	0.7	0.725	0.75																																														
Journey time mins	36	37.5	39	40.5	42	43.5	45																																														
Time of arrival	4:24 PM	4:23 or 4:22PM	4:21 PM	4:20 or 4:19PM	4:18 PM	4:17 or 4:16PM	4:15 PM																																														
Total for Section 2					45 marks																																																
Indicative Pass Mark 35/60																																																					



Book Your Functional Skills Exam Now!

Intech Centre is a leading training, careers and examination centre based in Islington, London, delivering Functional Skills Maths and English courses and exams for over 26 years.



Book Now!



Book Your Exams & Courses

Qualification	Private Course	Online Exam	Exam in London
Functional Skills Maths Level 1 & 2	Enrol on Course	Book Online Exam	Book London Exam
Functional Skills English Level 1 & 2	Enrol on Course	Book Online Exam	Book London Exam

Why Intech Centre?

- Over **26 years' experience** as a UK training and exam centre in London.
- **City & Guilds Functional Skills Maths and English exams**, Ofqual regulated and nationally recognised.
- Flexible **online learning** with 24/7 access plus online or centre-based exam options.
- Ideal if you still need GCSE Maths or English equivalent for university entry, teacher training, apprenticeships or employment.

CALL US FOR MORE INFORMATION:



020 7354 5655



www.intechcentre.com



info@intechcentre.com