Functional Skills Mathematics
Level 1 sample assessment

A City & Guilds Group Business
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Version 2

Marking scheme
PAPER-BASED

These materials relate to the assessments that will be in use from September 2015

V2

Sample Paper 6

Level 1 Sample Paper 6

	Mark	Represent	Analyse	Interpret	Open	Fixed					
1A	4	2	2	0	0	4					
1B	3	1	2	0	1	2					
1C	2	1	1	0	0	2					
1D	1	0	0	1	1	0					
1E	3	0	0	3	3	0	5	6	4	7	8
1F	2	1	1	0	2	0					
2A	8	1	1	6	8	0					
2B	1	1	0	0	1	0					
2C	2	1	1	0	2	0					
2D	2	1	1	0	2	0	5	4	6	15	0
2E	2	1	1	0	2	0					
3A	3	2	1	0	3	0					
3B	1	1	1	0	1	0					
3C	1	0	0	1	1	0					
3D	3	1	2	0	0	3					
3E	4	0	0	4	4	0					
3F	1	0	0	1	1	0	5	5	6	12	3
3G	2	1	1	0	2	0					
	45	15	15	16	34	11					
		33%	33%	36%	76%	24%					

Functional Skills Mathematics

Guidance notes for Sample Paper Mark Schemes
Level 1 and Level 2

Notes:

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

1) 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.

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) 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.

Total marks available: 45
Notional pass mark: 28 (or above/below)

NB incorrect money format given as an answer should only be penalised **once** on the whole paper and will lose 1 mark eg (£)290.6 at Task 1A will achieve 3 marks or (£)36.325 at 1B 2 would achieve 2 marks if money format not already penalised at 1A. Do not penalise any subsequent incorrect format.

Maths Level 1: Sample Paper 6 – Task 1

Step	Total marks	Marks	Marks awarded for
Task 1 Step A	**4**	**4**	**(£)290.60**
		3	(£)290.6 **or** complete correct method for both journeys with one calculation error or rounding error eg [(112 – 75) x 1.9 + 75)] x 2 **or** (£)145.30 (cost for one journey, correct money format) **or** (£)358.10 (treats both journeys as one, ie (112 x 2 – 75) x 1.9 + 75 = (£)358.10)
		2	(£)145.3 (cost for one journey, incorrect money format) **or** correct substitution into formula for one journey or both journeys eg (112 – 75) x 1.9 + 75 **or** (£)358.1 (see above) **or** 37 **and** x 1.9 seen **or** 112 – 75 **and** x 1.9 seen
		1	112 – 75 **or** 37 **or** x 1.9 seen as part of calculations
Task 1 Step B	**3**	**3**	**(£)36.32 or (£)36.33 or (£)36.34** **Note: wrong answer of (£)358.10 in 1A leads to (£)44.76 or (£)44.77 *follow through 1A***
		2	(£)36.325 **or** their 1A ÷7 eg (£)41.51 or (£)41.52
		1	÷8 seen **or** (£)41.51*428571* URT
Task 1 Step C	**2**	**2**	**5:05(pm) or 17:05 seen** **or 4:00(pm) to 5:04(pm) or 16:00 to 17:04 WITH supporting calculation or explanation eg allow 1 hour for traffic** **eg 21:25 – 2(hours) – 2(hours) 20(min)**
		1	4:00(pm) to 5:04(pm) without supporting calculation or explanation **or** acceptable time with error in format eg 17:00pm **with** calculation **or** complete correct method seen **without** a time stated
Task 1 Step D	**1**	**1**	**justification for their time in 1C reflecting purpose of task or involving time or other reason with mathematical dimension** **eg gives enough time for the journey to be at airport 2 hours before flight time** **eg we need to leave 4 hours 20 minutes and that gives us enough time**
Task 1 Step E	**3** **do not award marks for chart or line graph**	**1**	**table with clear structure, headings AND all necessary delineation**
		2	**their two money values with units AND the time in a correct form**
		1	all values and the time with one omission or error eg omitting £-signs is one error or omitting pm from 5:05
Task 1 Step F	**2** **no marks for repeat calc**	**2**	**a complete correct check of any original calculation seen in 1A or 1B using a different method** **eg a reverse calculation OR a calculation using approximate values**
		1	a correct check which is not finished
			Total for Task 1 15 marks

Example table for 1E

Total cost	£290.60
Each pay	£36.32
Time we will leave	17:05

Maths Level 1: Sample Paper 6 – Task 2			
Step	**Total marks**	**Marks**	**Marks awarded for**
Task 2 Step A	**8**	**2**	**rectangle drawn 14cm by 4cm tolerance ± ½ small square**
		1	pair of parallel lines 14cm **or** 4cm, tolerance ± ½ small square
		2	**3 rows of tomato plants AND 13 tomato plants in each row**
		1	3 rows of tomato plants **or** 13 tomato plants in a row
		1	**exterior tomato plants all 1cm from an edge, ie scaled 50cm**
		2	**tomato plants a consistent distance apart horizontally with at least 1cm between their centres**
		1	one row or column with consistent distances
		1	**key or label for tomato plant AND plot**
Task 2 Step B	**1**	**1**	**39 (tomato plants)** ***follow through 2A***
Task 2 Step C	**2**	**2**	**value between 156(kg) and 260(kg)** **accept a maximum and minimum within the above** **eg 156(kg) to 260(kg)** **eg 200(kg) to 210(kg)** ***follow through 2B***
		1	complete correct method with one calculation error eg 39 ÷ 3 **×** 12 or 39 ÷ 3 **×** 20
Task 2 Step D	**2**	**2**	**correct value from sale of half of their tomatoes** **eg (£)123.50 for half of 260(kg)** ***follow through 2C***
		1	correct answer in pence eg 12350(p) **or** complete correct method with one calculation error
Task 2 Step E	**2**	**2**	**correct explanation of scale used in 2A with reference to scale AND length of scaled line AND actual length** **eg 1m = 2cm so 7(m) is 14(cm) (for plot)** **eg 2(m) ÷ 50 = 4(cm)** **eg 1m is 2 squares so 50cm is 1 square for gap**
		1	incomplete explanation of scale used eg 2 squares are 1m for reference to scale only eg 2m = 4cm for reference to length of lines without scale reference
			Total for Task 2 15 marks

Example diagram for 2A

Maths Level 1: Sample Paper 6 – Task 3			
Step	**Total marks**	**Marks**	**Marks awarded for**
Task 3 Step A	**3**	**3**	**342**
		2	suitable method for finding 95% eg 360 x 95 ÷ 100 or 0.95 x 360
		1	360 seen for total **or** x 0.95 or equivalent do not accept x 95%
Task 3 Step B	**1**	**1**	**344** ***follow through 3A addition*** ***ie value of their 3A – 16***
Task 3 Step C	**1**	**1**	**Yes or no consistent with their 3A and 3B AND supported with a valid reason** **eg Yes because 344 is bigger than 342**
Task 3 Step D	**3** **No marks for median or mode**	**3**	**14 (min)**
		2	224 ÷ 16 **or** complete correct method with one error
		1	224 seen for total number of minutes
Task 3 Step E	**4** **No marks for line graph or table**	**1**	**bar chart with bars for means for May and June**
		1	**vertical axis label and bar labels / key** ***if title present, this can clarify axis labels***
		1	**suitable continuous linear vertical scale starting from zero (implied) and going to at least 14 or sufficient for their values**
		1	**height of both bars correct ± ½ small square** **eg 9 minutes for May and 14 minutes for June** ***follow through 3D***
Task 3 Step F	**1**	**1**	**valid comment referring to / comparing both averages** **eg June's average time late was greater than May's**
Task 3 Step G	**2** **no marks for repeat calc**	**2**	**a complete correct check of any original calculation seen in 3B or 3D using a different method** **eg a reverse calculation OR a calculation using approximate values**
		1	a correct check which is not finished
			Total for Task 3 15 marks

Example chart for 3E

Level 1 Sample Paper 6			
Coverage and Range (Technical Skills)	**Task 1**	**Task 2**	**Task 3**
C1.1 Understand and use whole numbers and understand negative numbers in practical contexts	✓	✓	✓
C1.2 Add, subtract, multiply and divide whole numbers using a range of strategies	✓	✓	✓
C1.3 Understand and use equivalences between common fractions, decimals and percentages	✓	✓	✓
C1.4 Add and subtract decimals up to 2 decimal places	✓		
C1.5 Solve problems involving ratio, where one number is a multiple of the other		✓	
C1.6 Use simple formulae expressed in words for 1- or 2-step operations	✓		
C1.7 Solve problems requiring calculation, with common measures, including money, time, length, weight, capacity and temperature	✓	✓	✓
C1.8 Convert units of measure in the same system	✓	✓	
C1.9 Work out areas and perimeters in practical situations			
C1.10 Construct geometric diagrams, models and shapes		✓	
C1.11 Extract and interpret information from tables, diagrams, charts, graphs			✓
C1.12 Collect and record discrete data and organise and represent information in different ways	✓	✓	✓
C1.13 Find mean and range			✓
C1.14 Use data to assess the likelihood of an outcome			