



NCFE Level 1 Functional Skills Qualification in Mathematics (603/5055/6)

Mark scheme: Practice P001267
v1.1

past paper

Examiner Mark Scheme Guidance

Information

This guidance is intended to support NCFE examiners in the valid, reliable and consistent application of the relevant mark scheme version, against learner evidence generated during their external assessment.

This mark scheme provides:

- the total marks available for each question
- the subject content reference for each mark
- example process/methods and evidence of the types of responses expected for each mark
- (once confirmed) the pass mark for the relevant assessment version.

This mark scheme **must** be used for paper-based and online marking of the assessment version indicated.

Instructions and guidance on application

- All learners must receive the same treatment and should be marked fairly. Examiners must mark the first learner in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Learners must be rewarded for what they have shown they can do rather than penalised for things they have not done.
- Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Half marks must not be awarded.
- Examiners should be prepared to award zero marks if the learner's response is not worthy of credit according to the mark scheme.
- The mark scheme is a working document and may be added to at the standardisation to reflect valid alternative answers given by a learner.
- When in doubt regarding the application of the mark scheme to a learner's response, the Chief Examiner must be consulted.

This mark scheme provides the following information:

- section and activity information
- question number
- total marks available per question (top row, shaded) followed by
- attribution of individual marks per question
- problem solving (PS) and underpinning skill (UPS) attribution
- process/method or answers, as well as additional or alternative evidence; indicative of the subject content (SC) attribution
- any additional guidance, as required.

To support the valid, reliable and consistent marking of learner evidence, the following abbreviations are applied throughout the mark scheme:

Annotation	Explanation and use
FT	Follow through marks are applied when there are earlier mistakes in the method.
OE	Or equivalent marks are available for the justification of the answer being presented in a different form to the mark scheme i.e. 0.5 or ½.

CAO	Correct answer only.
Their	'Their' refers to the learner's own values.
Seen	Seen refers to the requirement to see the stated value in the learner's response or working out.
Imp	Implied refers to the learner's response implying correct working out used but not seen.
Brackets	Indicates units are not required on final answers or for answers seen within working.
BOD	Benefit of doubt where learner handwriting may be difficult to interpret but previous working may indicate correct final answer.
Shaded	Indicates requirements for full marks to be awarded.

Version Control

Mark schemes are subject to version control. Examiners **must** ensure they have access to the latest version following each standardisation event.

Over time mark schemes will incorporate additional evidence captured and confirmed during standardisation events. Any additional evidence criteria will be captured in colour-coded text applicable to the dated standardisation event.

Note: Pass marks for Functional Skills external assessments are set in an awarding meeting, in which a combination of statistical analysis and professional judgement is used to determine the minimum required standard to achieve a pass in the assessment.

While different versions of the same assessment are designed to be of the same level of difficulty, variations in content can lead to the minimum required standard being represented by different marks across versions.

Paper number:		P001267	Version:	1.1	Pass mark:	37
(Section A) Activity 1: Mugs of tea (Non-calculator Test)						
Q	Marks	UPS / PS	Process and Answer	Additional or Alternative Evidence (with guidance)	SC	
1 (a)	1	UPS	(£)12	CAO		N9
1 (b)	1	UPS	(£)correct answer to their 12 + 24			N2
1 (c)	3	PS	1.5(p)	Award 3 marks if correct answer given		
	1		$\frac{\text{their } 36}{2400}$			N17
	1		$\times 100$			N3a
	1		1.5(p)	CAO		N17
1 (d)	3	PS	50 (servings)	Award 3 marks if correct answer given		
	1		Uses conversion 1 litre = 1000 ml	e.g. $20 \div 1000$ or 0.02 or 1000 (ml) seen		M20c
	1		$1000 \div 20$ or $1 \div 0.02$	OE		N17
	1		50 (servings)	CAO		N17
1 (e)	2	PS	0.32(p)	Award 2 marks if correct answer given		
	1		$\frac{320}{1000}$ or 0.32 or $\frac{3.2}{1000}$ or 0.0032			N3b
	1		0.32(p)	CAO		N3b
1 (f)	2	PS	2.82 or 2.8 or 3(p)	Award 2 marks if correct answer given		
	1		Their $(1 + 0.32 + 1.5)$			N11
	1		Their correct total	Accept rounding to nearest penny if from correct working		N11
1 (g)	3	PS	(£)1.24	Award 3 marks if correct answer given		
	1		$\frac{55}{100} \times 80$ or $\frac{55}{100} \times 0.8$ or $\frac{80}{2} + \frac{80}{2 \times 10}$	OE may be implied by 40 and 4 seen		N14
	1		Their $44 + 80$ or their $0.44 + 0.8$ or 1.55×0.8 or 1.55×80 seen	Implies 1 st mark		N14
	1		(£)1.24	CAO		M20d

(Section B) Activity 2: Caring for reptiles (Calculator Test)																	
Q	Marks	UPS / PS	Process and Answer	Additional or Alternative Evidence (with guidance)	SC												
2 (a)	1	UPS	150 (mm)	CAO	M20a												
2 (b)	3	PS	4 (years)	Award 3 marks if correct answer given													
	1		72 – 12 or 60		N5												
	1		Their 60 ÷ 15		N5												
	1		4 (years)	CAO	N5												
2 (c)	2	PS	See below														
	1		4 : 1 and 2 : 1 seen		N17												
	1		Cauliflower with 4 : 1 and 2 : 1 seen		N17												
2 (d)	3	PS	See below														
	1		Calculates any area correctly	<table border="1"> <thead> <tr> <th colspan="2">Areas</th> </tr> </thead> <tbody> <tr> <td>Mini</td> <td>198</td> </tr> <tr> <td>Small</td> <td>356.5</td> </tr> <tr> <td>Medium</td> <td>604.5</td> </tr> <tr> <td>Large</td> <td>814</td> </tr> <tr> <td>X large</td> <td>1350</td> </tr> </tbody> </table>	Areas		Mini	198	Small	356.5	Medium	604.5	Large	814	X large	1350	M22a
	Areas																
	Mini	198															
	Small	356.5															
	Medium	604.5															
Large	814																
X large	1350																
1		23 × 15.5 or 356.5 and 31 × 19.5 or 604.5		Accept use of 70 cm (max size) i.e. 31 × 19.5 or 356.5 and 45 × 30 or 1350 then FT to Extra-large or 45 × 30 or £18.99	M22a												
1		Medium or 31 × 19.5 or £9.95 stated	FT their 23 × 15.5 and 31 × 19.5		N10												
2 (e)	3	PS	15 (terrapins)	Award 3 marks if correct answer given													
	Alternative method 1																
	1		6000 – 1900 or 4100		N7												
	1		$\frac{\text{their } 4100}{300}$ or 13.66... or 13 + 2		N7												
	1		15 (terrapins)		N12												
	Alternative method 2																
1		1900 + 300	Start of a repeated addition process	N7													

	1		$1900 + (13 \times 300)$	OE	N7
	1		15 (terrapins)		N12
2 (f)	2	UPS	See below		
	1		30-34 correctly labelled		H28a
	1		Bar drawn to 13	Allow any width of bar except a single line. Top of bar must be on 13 line, not above or below. If not ruled, line must be straight and accurate.	H28a
2 (g)	1	UPS	$\frac{4}{9}$ accept 0.44 or 44%	OE If 44 then must have %	H31

Activity 3: Cycling trip (Calculator Test)					
Q	Marks	UPS / PS	Process and Answer	Additional or Alternative Evidence (with guidance)	SC
3 (a)	2	UPS	$3\frac{1}{2}$ (hours)	Award 2 marks if correct answer given	
	1		3 (hours) 30 (mins) or 210 (mins) or 3.5	OE	M20e
	1		$3\frac{1}{2}$ (hours)	Accept $3\frac{30}{60}$ OE	N8a
3 (b)	2	PS	(£)111.16	Award 2 marks if correct answer given	
	1		$158.8(0) \times 0.7$ or $158.8(0) \times 0.3$	OE	M19
	1		(£)111.16	CAO	M19
3 (c)	2	UPS	87.5 (mm) OE	Award 2 marks if correct answer given	
	1		$70 \div 8$		M21
	1		8.75×10		M20a
3 (d)	3	PS	196 (km)	Award 3 marks if correct answer given	
	Alternative method 1				
	1		70×2 or 140		N2
	1		$\frac{40}{100} \times 70$ or 28 or $\frac{40}{100} \times 140$ or 56		N14
1		196 (km)		N14	

Alternative method 2					
	1		Distance $\times 2$		N2
	1		1.4×70 or 98 or 1.4×140 or 196		N14
	1		196 (km)		N14
3 (e)	3	PS	Yes and 22.8(48...) or 23 or Yes and 20000 and 22848	Award 3 marks if correct answer given	
	1		$42 \times 32 \times 17$ or 22848		M23
	1		Their $22848 \div 1000$ or 20×1000 or 20000 seen		M20c
	1		Yes and 22.8(48...) or 23 or Yes and 20000 and 22848		M23
3 (f)	1	PS	Yes, and 1.52 or 0.8 seen	CAO	N10
3 (g)	1	PS	1.323 kg or 1323 g	Units must be included	M20b
3 (h)	1	UPS	90 (degrees)		M26a

Activity 4: Rough Sleeping (Calculator)					
Q	Marks	UPS / PS	Process and Answer	Additional or Alternative Evidence (with guidance)	SC
4 (a)	3	PS	See below		
	1		Vertical scale correctly completed 0, 1000, 2000, 3000, 4000, 5000		H27d
	1		Horizontal scale correctly completed 2011, 2012, 2013, 2014, 2015, 2016		H27d
	1		Both axes correctly labelled	Horizontal axis year. Vertical axis frequency or number (of people)	H27d
4 (b)	1	UPS	$\frac{3}{4}$	CAO	N16
4 (c)	2	UPS	2100 (people)	Award 2 marks if correct answer given	
	1		$\frac{3}{4} \times 2744$ or $\frac{75}{100} \times 2744$ or 2058	OE	N9
	1		2100 (people)	CAO	N15
4 (d)	3	PS	6850 (people)	Award 3 marks if correct answer given	
Alternative method 1					

	1		$\frac{40}{100} \times 365$ or 146	OE	M20d																		
	1		1000000 ÷ their 146	OE	N1a																		
	1		6850 (people)	CAO	N12																		
Alternative method 2																							
	1		Their value £ ÷ 0.4 or their value p ÷ 40	Must work with consistent units	M20d																		
	1		1000000 ÷ 365		N1a																		
	1		6850 (people)	CAO	N12																		
4 (e)	2	UPS	6, 5, 8 correctly placed																				
	1		2 or 3 correct frequencies	<table border="1"> <thead> <tr> <th>Number of</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> </tr> <tr> <td>1</td> <td>4</td> </tr> <tr> <td>2</td> <td>6</td> </tr> <tr> <td>3</td> <td>5</td> </tr> <tr> <td>4</td> <td>8</td> </tr> <tr> <td>5</td> <td>7</td> </tr> <tr> <td>6</td> <td>1</td> </tr> <tr> <td>Total</td> <td>32</td> </tr> </tbody> </table>	Number of	Frequency	0	1	1	4	2	6	3	5	4	8	5	7	6	1	Total	32	H27a
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0	1																						
1	4																						
2	6																						
3	5																						
4	8																						
5	7																						
6	1																						
Total	32																						
	1	UPS	3 correct frequencies		H27a																		
4 (f)	2	PS	(£)194.50	Award 2 marks if correct answer given																			
	1		$\frac{6224}{32}$ or 194.5 seen	Award for ÷ 32 (allow for misread of 6224 if clear)	H29a																		
	1		(£)194.50	Must have 2dp	H29a																		
4 (g)	1	PS	(£)167	CAO	H29b																		
4 (h)	1	PS	Football because it or 0.50 is the biggest (probability)	Accept highest, biggest, largest (not most likely) Do not accept football and 0.5 seen without comment on bigger/higher/most (or 0.5 is most likely)	H30b																		