Mark Scheme
Mock Paper

GCSE in Mathematics Specification A Foundation Tier

Paper 1 (Non-Calculator)

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Mark schemes should be applied positively. Candidates 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 candidate's response is not worthy of credit according to the mark scheme.

- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

    i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear.
    Comprehension and meaning is clear by using correct notation and labelling conventions.

    ii) select and use a form and style of writing appropriate to purpose and to complex subject matter.
    Reasoning, explanation or argument is correct and appropriately structured to convey mathematical reasoning.

    iii) organise information clearly and coherently, using specialist vocabulary when appropriate.
    The mathematical methods and processes used are coherently and clearly organised and the appropriate mathematical vocabulary used.

Guidance on the use of codes within this mark scheme
M1 – method mark
A1 – accuracy mark
B1 – working mark
C1 – communication mark
QWC – quality of written communication
oe – or equivalent
cao – correct answer only
ft – follow through
sc - special case

Specification A: Mock Paper 1 Foundation Tier

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
1.	(a)		Two thousand six hundred and seventy	1	B1 cao
	(b)		60257	1	B1 cao
	(c)		4600	1	B1 cao
	(d)		800	1	B1 800 oe
					Total for Question 1: 4 marks
2.	(a)		16	1	B1 cao
	(b)		22	1	B1 cao
	(c)		3 circles; 4 ½ circles	2	B1 for 3 complete circles in Thursday B1 for 4 ½ circles in Friday
					Total for Question 2: 4 marks
3.	(i)		Cylinder	2	B1 cao
	(ii)		Pyramid		B1 cao
					Total for Question 3: 2 marks

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
4.	(a)		2	1	B1 cao
	(b)		2 lines of symmetry drawn	1	B1 cao
Total for Question 4: 2 marks					
5.	(a)		4 squares shaded	1	B1 cao
	(b)		$\dfrac{7}{10}$	1	B1 cao
	(c)		34%	1	B1 cao
	(d)	20%,30%(50%) 80% .2, .3 (.5) .8 $\dfrac{2}{10}, \dfrac{3}{10}, \left(\dfrac{5}{10}\right), \dfrac{8}{10}$	No + reason	2	M1 for correct attempt to write 20% as a fraction or decimal or correct attempt to write $^4/_5$ as a percentage or decimal A1 for both converted to same form and correct reason
Total for Question 5: 5 marks					
6.	(a)		$5d$	1	B1 cao
	(b)		$6m$	1	B1 cao
	(c)		$8j + 4k$	2	M1 for $8j$ or $4k$ A1 cao
Total for Question 6: 4 marks					

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
7.	(a)		(4, 2)	1	B1 cao
	(b)		(-2, 1)	1	B1 cao
	(c)		(0, -4) plotted	1	B1 cao
					Total for Question 7: 3 marks
8.	(a)		7 cm	1	B1 6.8 – 7.2 cm
	(b)		Acute	1	B1 cao
	(c)		35°	1	B1 33° – 37°
	(d)(i)		140°	3	M1 for 360 – (90 + 130) A1 cao
	(ii)		reason		C1 for Angles around a point add up to 360°
					Total for Question 8: 6 marks
9. FE	(a)	15.00 + 13.50	26.50	3	M1 for tickets for 2 adults and 3 children or family + one child M1 for 22.00 + 4.50 A1 cao
	(b)	40 – "28.50"	13.50	2	M1 for 40 – "26.5" A1 ft
					Total for Question 9: 5 marks
10.	(a)		5	1	B1 cao
	(b)		21	1	B1 cao
	(c)		9	2	M1 for 3m = 34 – 7 A1 cao
					Total for Question 10: 4 marks
11.	(a)		Cross at 0	1	B1 cao
	(b)		Cross at ½	1	B1 cao
	(c)		red	1	B1 cao
	(d)		$^1/_8$	1	B1 for $^1/_8$ oe
					Total for Question 11: 4 marks

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
12. FE	(a)		10 30	1	B1 cao
	(b)		56	1	B1 cao
	(c)		09 15	1	B1 cao
Total for Question 12: 3 marks					
13. FE			Diagram or chart	4	B1 for key or suitable labels to identify Brighton and Cromer B1 for 5 correct labels for days B1 for a diagram or chart (combined or separate) set up for comparison eg. Dual bar chart, back to back stem and leaf diagram, pie chart, pictogram etc B1 fully correct
Total for Question 13: 4 marks					
14.	(a)(i)		27	2	B1 cao
	(ii)		Add 6		B1 cao
	(b)		39	1	B1 cao
	(c)		No + reason	1	C1 for correct reason, eg All numbers in sequence are odd, 58 is even
Total for Question 14: 4 marks					

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
15. QWC FE		40 – 35 = 5 hours 50 mins + 2 hrs 40 mins + 1 hr 35 mins (= 5 hrs 5 mins)	No + reason	4	M1 for 40 – 35 or 5 hours or 300 minutes seen M1 for attempt to add up times of programmes or 5 hours 5 mins or 305 mins seen M1 for comparing "5 hours" and "5 hours 5 mins" C1 for student's conclusion following from their working seen QWC : All working clearly seen and candidate's conclusion linked to working
					Total for Question 15: 4 marks
16. FE		20 × 2 (=40) ½ × 20 × 3.50 (=35) ¼ × 20 × 3 (=15) 5 × 2 (=10) 35 + 15 + 10 – 40	£20	4	M1 for 20 × 2 (=40) M1 for sight of ½ × 20 or ¼ × 20 M1 for "10" × 3.5 or "5" × 3 or 20 – "10" – "5" A1 cao
					Total for Question 16: 4 marks
17.			72	4	M1 for 180 – 126 (=54) M1 for (180 – 2×"54")÷2 A1 cao B1 for all reasons clearly given
					Total for Question 17: 4 marks
18.		0.5 × 8 × 9 (=36) x^2 = 36 x = 6 4 × 6	24	4	M1 for 0.5 × 8 × 9 (=36) M1 for √36 M1 for 4 × "6" A1 cao
					Total for Question 18: 4 marks

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
19.			$\dfrac{7}{10}$	2	M1 for correct attempt at common denominators or conversion to decimals A1 for $\dfrac{7}{10}$ oe
					Total for Question 19: 2 marks
20. FE		134 + 125 + 30 = 289 289 ÷ 54	6	3	M1 for 134 + 125 + 30 = 289 M1 for 289 ÷ 54 or repeated addition of 54 A1 cao
					Total for Question 20: 3 marks
21.			Question and response boxes	2	B1 for suitable question B1 for suitable response boxes
					Total for Question 21: 2 marks
22.			49	4	M1 for 100 – 38 (=62) M1 for 23 – 7 (-16) M1 for "62" – 18 – "16" A1 cao *NB* : working may be in a table or diagram
					Total for Question 22: 4 marks
23. FE			2	4	M1 for attempt to find LCM of any 2 of 12, 8 and 9 M1 for attempt to find LCM of 8, 9 and 12 A1 for 72 A1 for 2
					Total for Question 23: 4 marks
24.	(a)	$3 \times (-4) + 2 \times (-4)^2$	20	2	M1 for substitution into formula A1 cao
	(b)		m^{13}	1	B1 cao
					Total for Question 24: 3 marks

1MA0/1F					
Question		Working	Answer	Mark	Additional Guidance
25. FE		15000÷100×40 (=6000) 15000 – "6000" (=9000)	3000	4	M1 for 15000 – 15000÷100×40 oe (=6000) M1 for "9000" ÷ (3 + 1 + 2) (=1500) M1 for "1500" × 2 A1 cao
					Total for Question 25: 4 marks
26.	(a)		$2 \times 2 \times 2 \times$ 3×5	2	M1 for correct method seen A1 cao
	(b)		30	1	B1 cao
					Total for Question 26: 3 marks
27.		$2x +1 + 3x - 2 + 3x + 1 + 2x =$ 38 $10x - 2 = 38$ $x = 4$ 7; 8; 13 ½ ×(7 + 13) × 10	80	5	M1 for $2x +1 + 3x - 2 + 3x + 1 + 2x = 38$ M1 for correct method to solve linear equation A1 for $x = 4$ M1 for substitution of $x = 4$ into any expression for side A1 cao
					Total for Question 27: 5 marks