
CE AT 13+

FOUNDATION MATHEMATICS

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Specimen Paper Mark Schemes

Date

Information

Full marks should not be awarded to correct answers unsupported by necessary working.

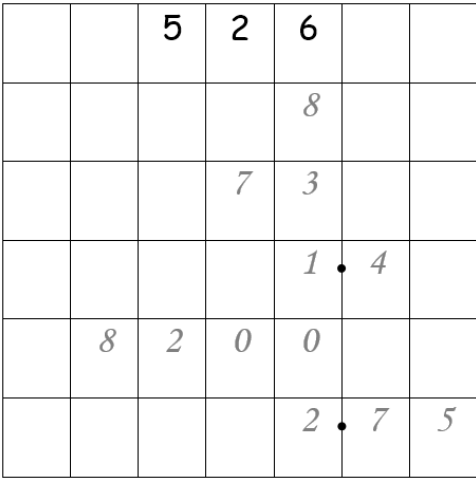
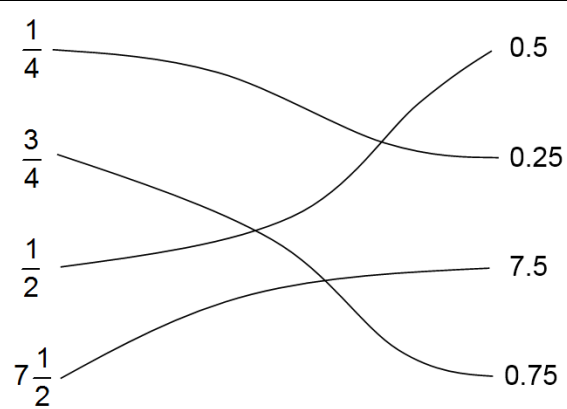
Marks should be deducted for mathematically incorrect working.

A maximum of 1 mark per question should be deducted for incorrect/missing units.

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FOUNDATION MATHEMATICS: NON-CALCULATOR

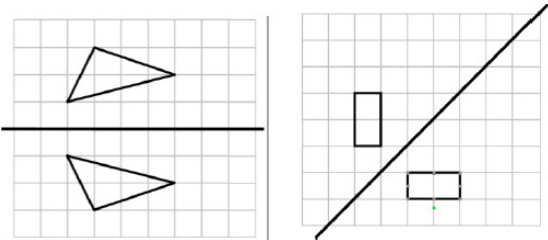
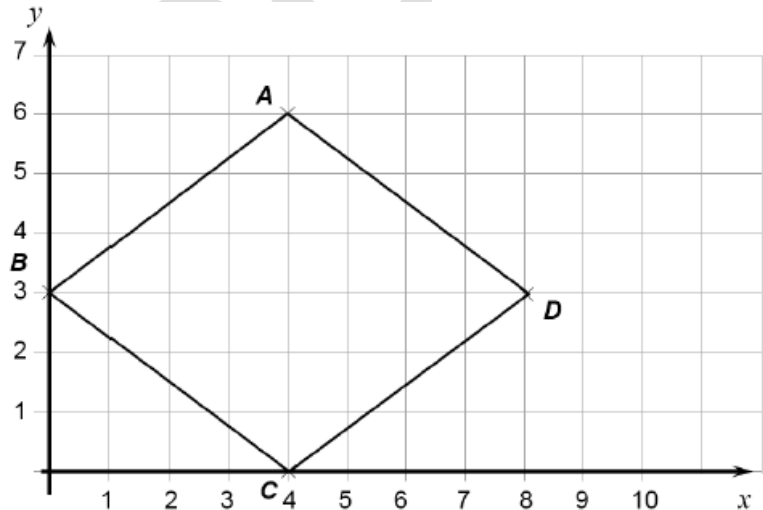
Q.	Answer	Mark	Additional Guidance
1. a)	i) 1321 ii) 714	4	M: 2 A: 2
b)	i) 77 ii) 222	4	M: 2 A: 2
2. a)	86	2	A: 2
b)	540		1 mark for 2 correct
c)	4.8		
3.		3	A: 3 lose 1 mark for each error
4. a)		4	A: 4
b)	i) $\frac{9}{10}$ ii) $\frac{3}{100}$	2	A: 2
c)	i) 17 ii) 4 iii) 4	3	A: 3
d)	3, 3.1	2	A: 2
5. a)	F	2	A: 2
b)	T		lose 1 mark for each error
c)	F		
d)	F		

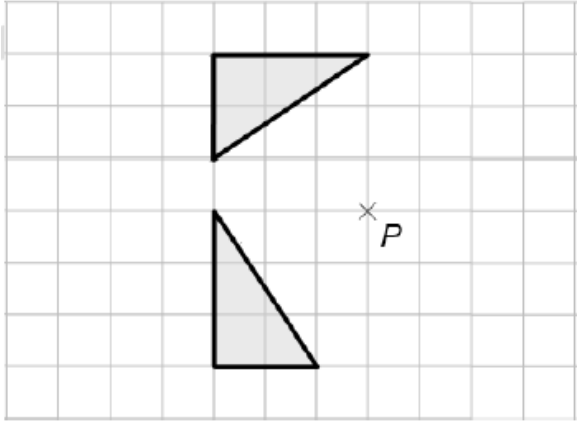
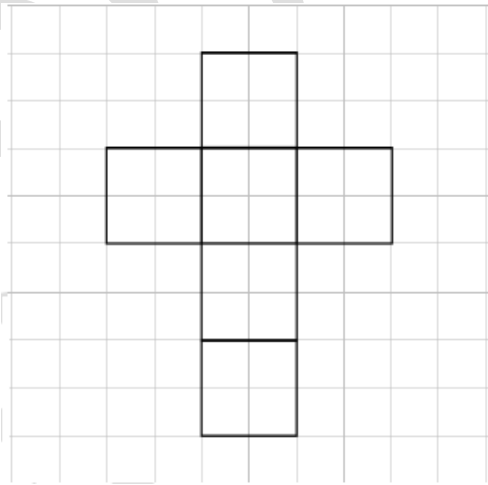
Q.	Answer	Mark	Additional Guidance
6. a)	$8 + 3$	1	A: 1
b)	$480 \div 12$	1	A: 1
c)	150×6	1	A: 1
d)	$74 - 28$	1	A: 1
7.	6	2	A: 2
8. a)	56.27	4	M: 2
b)	74.7		A: 2
9. a)	i) $\frac{3}{4}$	1	A: 1
b)	i) $\frac{1}{2}$ ii) $\frac{1}{6}$	4	M: 2 A: 2
10. a)	456	3	A: 3
b)	864		
c)	24		
11.	16 cm^2	2	A: 2 1 mark for 16 1 mark for cm^2
12.	0.8	2	A: 2
13.	12 m^2	3	M: 1 A: 2 must have units
14. a)	i) $\frac{6}{15}$ ii) $\frac{12}{100}$	2	A: 2
b)	they are the same size	1	A: 1
c)	$\frac{3}{4}$	2	A: 2 1 mark for partial reduction
15.	30 m^2	3	M: 1 A: 2 must have units
16.	$\frac{3}{20}$	2	A: 2
17. a)	$t \approx 25^\circ$ $s \approx 100^\circ$	3	A: 3 allow generous margin
b)	$x = 83^\circ$ $p = 320^\circ$ $y = 133^\circ$ $q = 34^\circ$ $m = 54^\circ$	8	M: 3 A: 5

Q.	Answer	Mark	Additional Guidance
18.	35 000	3	M: 2 for 500 x 70 A: 1
19.	$a = 3$ $b = 9$	4	M: 2 A: 2
20. a)	19	6	M: 3 A: 3
b)	17		
c)	9		
21. a)	35	3	M: 2 A: 1
b)	4 : 5	2	A: 2 1 mark for partial simplification
22.	13	3	M: 2 A: 1
23. a)	25	7	M: 4 A: 3
b)	36		
c)	80		
Total		100	

FOUNDATION MATHEMATICS: CALCULATOR

Q.	Answer	Mark	Additional Guidance
1. a)	79	2	A: 2
b)	39.69		
2. a)	i) 7, 14, 21, 28, 35 ii) 1, 4, 9, 16, 25 iii) 2, 4, 6, 8, 10	6	A: 6 2 marks each
b)	1, 2, 4, 5, 10, 20	2	A: 2
c)		2	A: 2
3. a)	42.6	2	A: 2
b)	9.3		
4.		2	A: 2 1 mark for accuracy
5. a)	6 000 g	4	A: 4
b)	4.5 m		
c)	700 p		
d)	60 minutes		
6. a)	30 kg	3	A: 3
b)	12 m		
c)	35 m ²		
7.	43.8 cm	3	M: 1 A: 2 must have units
8.	$a = 3.4$ $b = 3.75$ $c = 4.08$	3	A: 3
9.	£420	3	M: 1 A: 2 must have units
10.	54 cm ³	3	M: 1 A: 2 must have units

Q.	Answer	Mark	Additional Guidance
11. a) b) c) d) e) f)	a^2 $2a$ cd $10a$ $9m$ $20m^2$	6	A: 6
12. a) b) c) d)	13 -16 4 15	7	M: 3 A: 4
13.		4	A: 4 2 marks for pencil ruler accuracy
14.	equilateral triangle square parallelogram	4	A: 4 1 mark can be awarded for spelling
15.	£3.96	3	A: 3
16.			
	i) A, B and C plotted and labelled	3	A: 3
	ii) rhombus drawn and D labelled	2	A: 2

Q.	Answer	Mark	Additional Guidance
17.		3	A: 3 1 mark for pencil ruler accuracy
18.	$\frac{2}{5}$	3	M: 2 A: 1
19.	126 miles	3	M: 2 A: 1 must have units
20. a)	$10 - (2 + 3) = 5$	2	A: 2
b)	$(3 + 2) \times (3 + 1) = 20$		
21. a)	5	1	A: 1
b)	24	2	M: 2 A: 1
22. a)	9.6 cm	2	A: 2 1 mark for accuracy
b)	96 mm	1	A: 1
23. a)	40°	2	A: 2 1 mark for accuracy
b)	acute	1	A: 1
24.		4	A: 4 any correct net 1 mark for pencil ruler accuracy

Q.	Answer	Mark	Additional Guidance
25. a)	26.8 feet	4	M: 2
b)	3 m		A: 2
26.	21	4	M: 3 A: 1
27.	100 cm ²	4	M: 3 A: 1
Total		100	