

For OCR

GCSE Mathematics

Foundation Tier

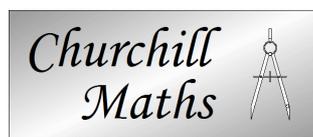
Paper 1A

Marking Guide

Method marks (M) are awarded for knowing and using a correct method.

Accuracy marks (A) are awarded for correct answers, having used a correct method.

(B) marks are independent of method marks.



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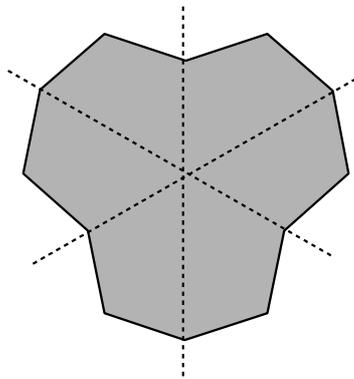
Foundation Tier Paper 1A Marking Guide

1	(a) Busrah	B1	
	(b) 6	B1	
	(c) Abraham	B1	
	(d) Dabir	B1	Total 4

2	(a) $\approx 60\text{ }^\circ\text{C}$ (from graph)	B1	
	(b) $\approx 176\text{ }^\circ\text{F}$ (from graph)	B1	
	(c) $\approx 32\text{ }^\circ\text{F}$ (from graph)	B1	Total 3

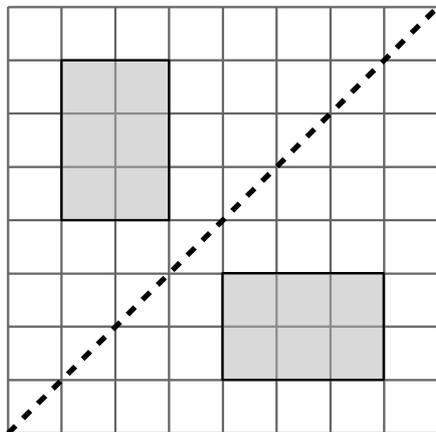
3	(a) (i) 3	B1	
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(ii)



B1

(b)



B2

Total 4

4	(a) $\frac{3}{4}$	B1	
	(b) 0.3	B1	
	(c) $= \frac{36}{300} \times 100\% = \frac{36}{3}\% = 12\%$	M1 A1	
	(d) $66 \div 3 = 22$	M1	
	$22 \times 2 = 44$	A1	Total 6

5	(a) B	B1	
	(b) D	B1	
	(c) E	B1	Total 3

6	(a) equilateral	B1	
	(b) rhombus	B1	
	(c) trapezium	B1	
	(d) obtuse	B1	
	(e) angle $AEC = 180 - 60 = 120^\circ$	M1	
	opposite angles of rhombus are equal, angle $ABC = 120^\circ$	A1	Total 6

7	(a)		B1
	(b)		B1
	(c)		B1
	(d) e.g. the letter D being picked	B1	

(e)* e.g.

	A	C	C	D	F
A	✓				
B					
D				✓	
D				✓	
E					

$$P = \frac{3}{25}$$

3 marks

Total 7

[award 3 marks for correct answer following clear valid reasoning; award 1-2 marks for work towards this]

8	(a) Multiple	B1	
	(b) Square	B1	
	(c) Factor	B1	Total 3

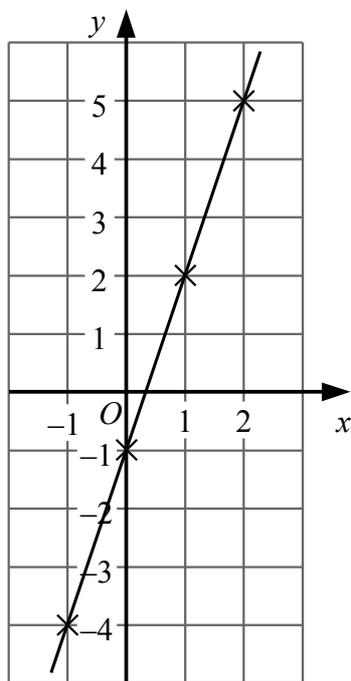
- 9 (a) 64 B1
 (b) 5 B1
 (c) $= 21 - 5 = 16$ B1
 (d) $\approx 70 - 5 \times 8$ M1
 $= 70 - 40 = 30$ M1 A1 Total 6

- 10 car = 10 mins + 3 hrs 20 mins = 210 mins M1
 train = 20 mins + 2 hrs 35 mins = 175 mins M1
 ratio is 210 : 175
 $= 42 : 35$
 $= 6 : 5$ A1 Total 3

- 11 bought for $30 \times 15 = \text{£}450$ B1
 sold for $16 \times 25 + 12 \times 20 + 16.50 + 9.20$ M1
 $= 400 + 240 + 25.70$
 $= \text{£}665.70$
 profit = $665.70 - 450 = \text{£}215.70$ A1 M1 A1 Total 5

- 12 (a) B2
- | | | | | |
|-----|----|----|---|---|
| x | -1 | 0 | 1 | 2 |
| y | -4 | -1 | 2 | 5 |

- (b) B2



- (c) $y = 3x + 3$ B1 Total 5

13 (a)

	UK	Rest of Europe	Outside Europe	Total
Adult	26	19	10	55
Child	9	11	5	25
Total	35	30	15	80

M1 A2

(b) e.g. no, twice as many adults went outside Europe but there were more than twice as many adults in total so the proportion was smaller

B2

Total 5

14 (a) w^5

B1

(b) $= 8x - 6x + 3 = 2x + 3$

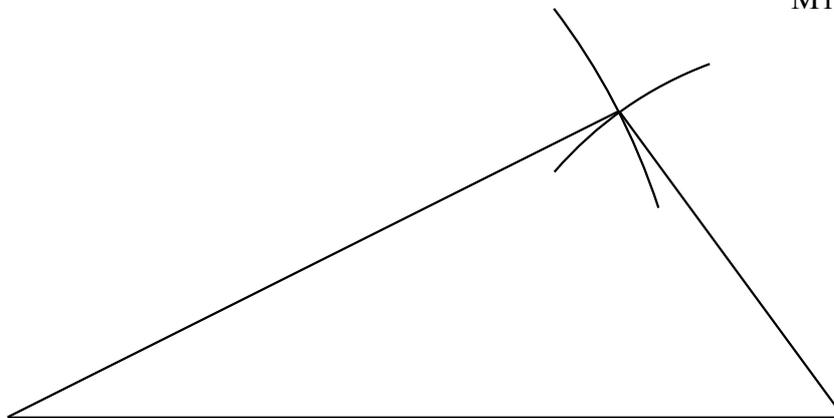
M1 A1

(c) $2(3p + 5)$

B1

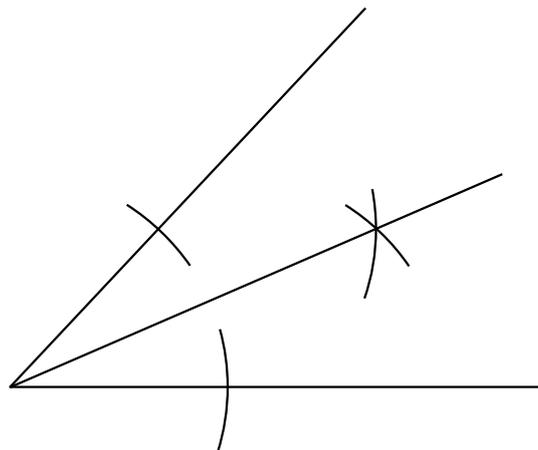
Total 4

15 (a)



M1 A2

(b)

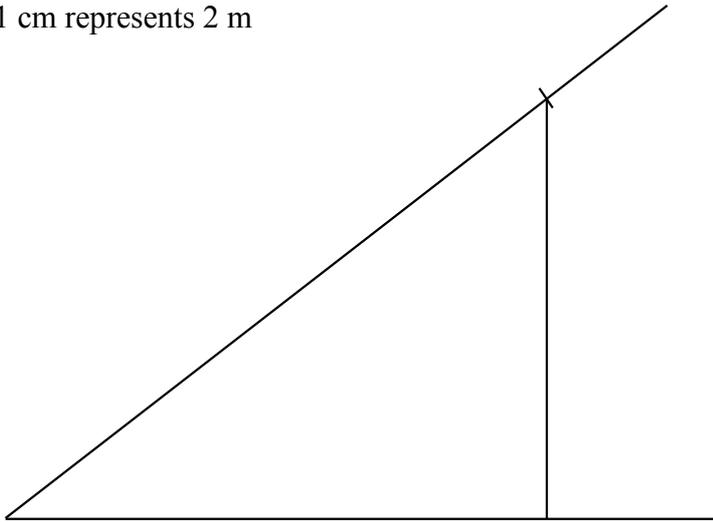


M1 A1

Total 5

16	(a)	e.g. no option to answer 0 groups overlap (4 is in 2nd and 3rd choices)	B1 B1	
	(b)	e.g. people may be influenced by the answers that others give	B1	Total 3
17	(a)	1 person = £390 2 people = $2 \times 390 = £780$	M1 A1	
	(b)	full board = $2 \times 455 = £910$ B & B + lunch and dinner = $780 + 7 \times 2 \times 30$	B1 M1	
		<i>[can use 6, 7 or 8 as travel days may be included]</i> = $780 + 420 = £1200$ reduction = $1200 - 910 = £290$		
		$\frac{1}{4}$ of £1200 = £300	M1	
		Erina is correct (they save just under one quarter)	A1	Total 6
18		sides of “missing” triangle are 4 m and 5 m	B1	
		area = $6 \times 8 - \frac{1}{2} \times 4 \times 5$	M1	
		= $48 - 10 = 38 \text{ m}^2$	A1	
		cost = $50 \times 38 = 3800 \div 2 = £1900$	M1 A1	Total 5
19*	e.g.	if the card is $\frac{3}{10}$ mm thick, total thickness = $45 \times \frac{3}{10} = \frac{135}{10} = 13.5$ mm 14 mm is more than this so card must be thick enough	3 marks	Total 3
		<i>[award 3 marks for correct determination using valid method involving calculation; award 1-2 marks for work towards this]</i>		
20	(a)	= $(25 + 20) - 30 = 45 - 30 = £15$	M1 A1	
	(b)	$C = 30t$	B1	
	(c)	approx. $t = 2.5$	B1	
	(d)	if they think the job will take less than 2.5 hrs, Badri will be cheaper, if more than 2.5 hrs, Martin will be cheaper	B1	Total 5
21	e.g.	each pattern has 3 more dots than previous one to get from pattern 1 to 50 we add 49 lots of 3 4 dots in pattern 1 number of dots in pattern 50 = $4 + 49 \times 3$ = 151	M1 M1 M1 A1	Total 4

22 e.g. 1 cm represents 2 m



sensible scale stated	B1	
angle of 38° drawn	B1	
distance on diagram ≈ 5.5 cm	M1	
real distance = 11 m	M1	
height above ground = $11 + 1.5 = 12.5$ m	A1	Total 5

TOTAL FOR PAPER: 100 MARKS