

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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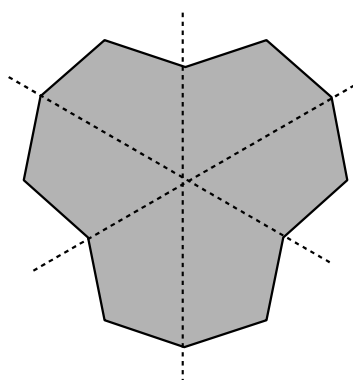
Foundation Tier Paper 1A Marking Guide

| | | | | |
|----------|-----|---------|----|---------|
| 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 |

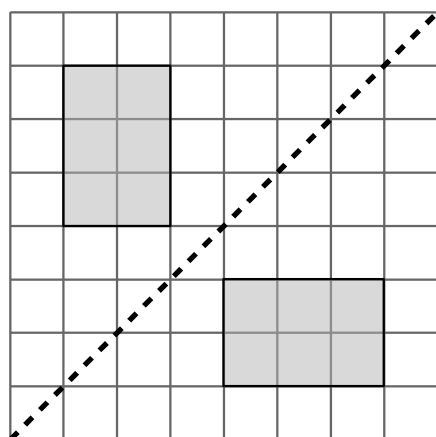
| | | | | | |
|----------|-----|-----|---|----|--|
| 3 | (a) | (i) | 3 | B1 | |
|----------|-----|-----|---|----|--|

(ii)



B1

(b)



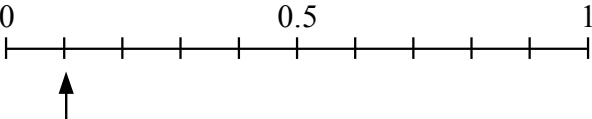
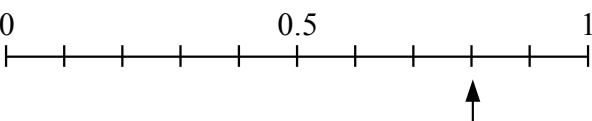
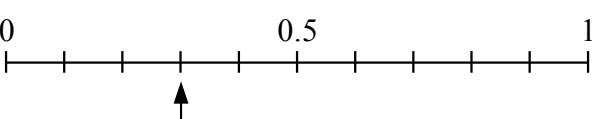
B2

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) | $66 \div 3 = 22$ $22 \times 2 = 44$ | M1 A1 | Total 6 |

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

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

| | | | |
|---|------------------------------------|---|----|
| 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 | Total 3 |
| | (b) Square | B1 | |
| | (c) Factor | B1 | |

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

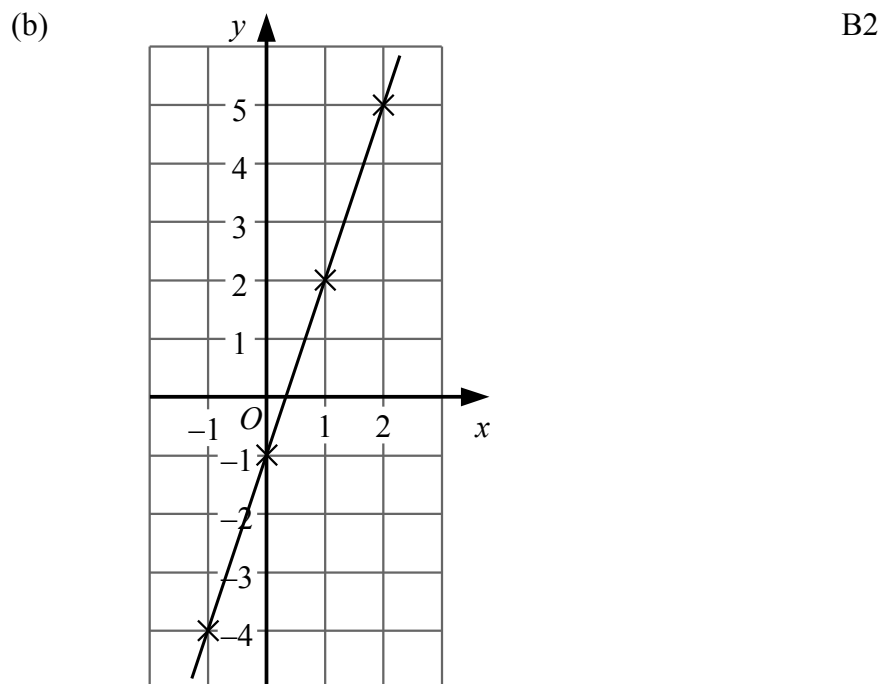
| | | | |
|----|--|----|---------|
| 10 | car = 10 mins + 3 hrs 20 mins = 210 mins | M1 | |
| | train = 20 mins + 2 hrs 35 mins = 175 mins | | |
| | ratio is 210 : 175 | M1 | |
| | $= 42 : 35$ $= 6 : 5$ | A1 | Total 3 |

| | | | |
|----|--|-------------|---------|
| 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)

| | | | | |
|-----|------|------|-----|-----|
| x | -1 | 0 | 1 | 2 |
| y | -4 | -1 | 2 | 5 |

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

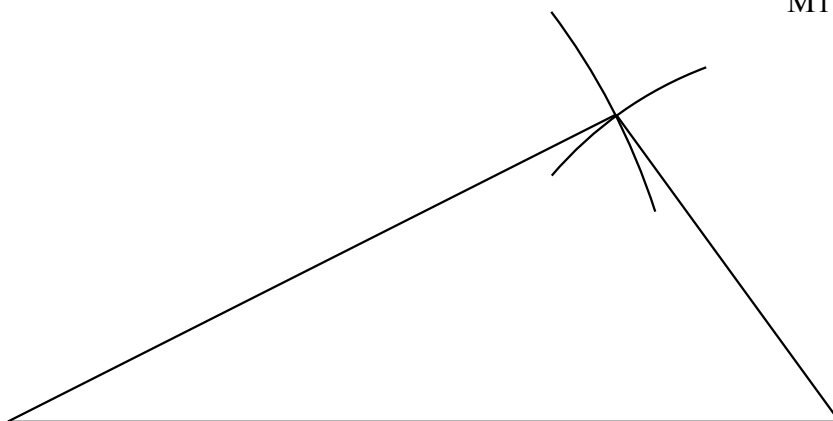
- (c) $2(3p + 5)$

B1

Total 4

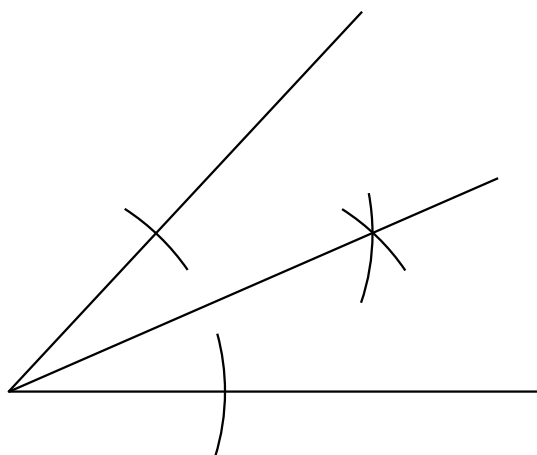
15 (a)

M1 A2



(b)

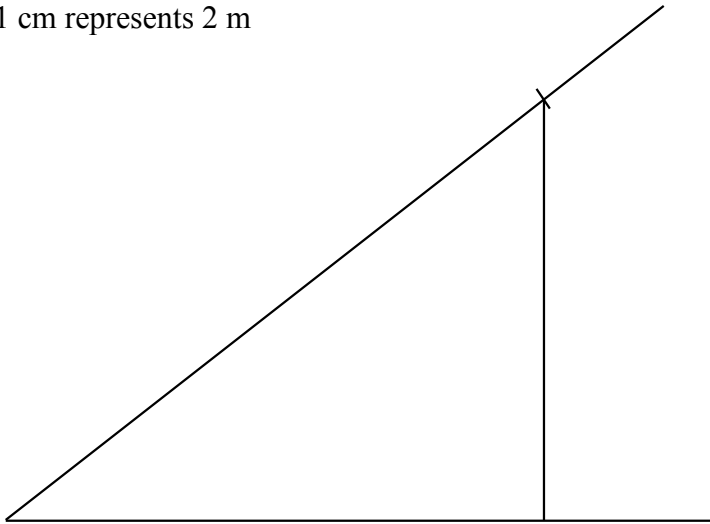
M1 A1



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 = $45 \times \frac{3}{10} = \frac{135}{10} = 13.5 \text{ mm}$ 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