

For AQA

General Certificate of Secondary Education

MATHEMATICS
Foundation Tier
Paper 2A Non-Calculator

Marking Guide

F

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.

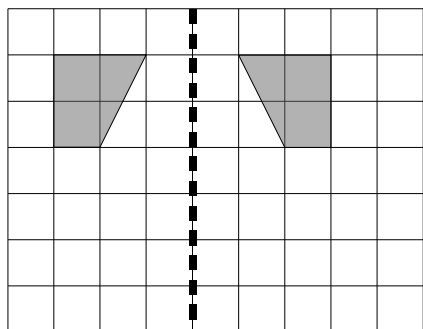


Written by Shaun Armstrong

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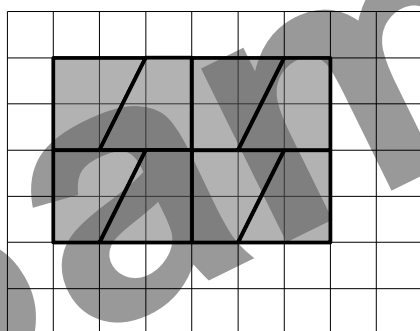
Foundation Tier Paper 2A Marking Guide

1. (a)



M1 A1

(b) e.g.



B2

Total 4

2. e.g.

On average, how much do you spend on sweets per day?

nothing

1 to 50p

51p to £1

£1.01 to £2

more than £2

B2

Total 2

3. (a) 35%

B1

(b) 0.7

B1

(c) 0.06

B1

(d) $= 0.2 \times 180 = £36$

B1

Total 4

4. (a) pentagon

B1

(b) (approx) 6.3 cm

B1

(c) (approx) 119°

B1

(d) obtuse

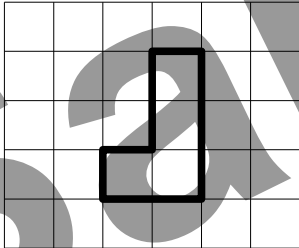
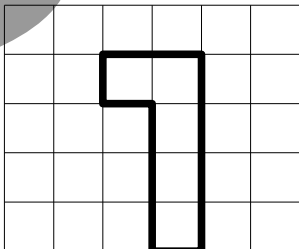
B1

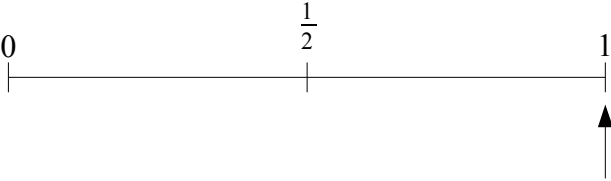
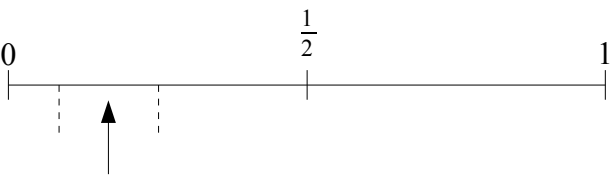
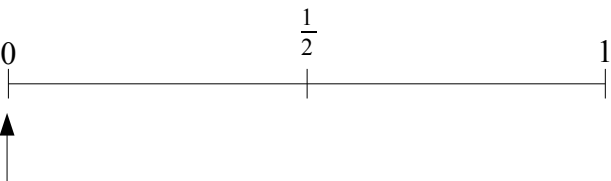
Total 4

5. $8 \times 2.80 = 22.40$
 $22.40 - 17.50 = \text{£}4.90$ M1
M1 A1 Total 3

6. (a) $= 7.8 \div 2 = 3.9 \text{ cm}$ B1
(b) $= \pi \times 3.9^2 = 47.78\dots$ B1
 $= 47.8 \text{ cm}^2$ (3sf) or 48 cm^2 (2sf) B1 Total 3

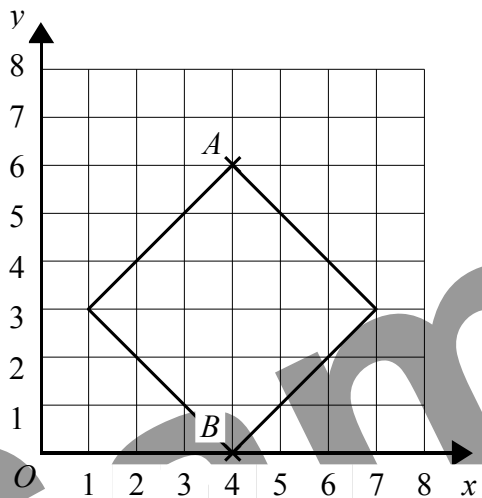
7. (a) (i) 46 B1
(ii) subtract 4 from the previous term B1
(b) 9, 7 M1 A1 Total 4

8. (a)  B2
(b)  B2
Total 4

9. (a)  B1
(b)  B1
[accept $\frac{1}{12}$ to $\frac{1}{4}$]
(c)  B1
Total 3

10. (a) (i) (4, 6) B1
(ii) (4, 0) B1

(b)



(1, 3) and (7, 3)

A1

Total 4

11. (a) $120 \div 30 = 4$, $80 \div 5 = 16$
 \therefore 4 houses

M1

A1

- (b) 1 house = 35, 3 houses = 105
1 car = 30, 2 cars = 60
3 houses and 2 cars = $105 + 60 = 165$
total straws = $120 + 80 = 200$
straws left = $200 - 165 = 35$

M1

M1

A1

Total 5

12. $= \frac{1}{2}(4.6 + 7.2) \times 2.8$
 $= 16.52 \text{ cm}^2$

M1

A1 B1

Total 3

13. (a) $= 9000 \div 3 = \text{£}3000$

B1

- (b) $= 1.105 \times 4000 = \text{£}4420$

M1 A1

Total 3

14. (a) A

B1

- (b) D

B1

- (c) C

B1

- (d) B

B1

- (e) D

B1

Total 5

15. time = $25 \times 60 = 1500 \text{ s}$
distance = $6 \times 1500 = 9000 \text{ m}$
 $9000 \div 1000 = 9 \text{ km}$

M1

M1

M1 A1

Total 4

16.

5	4 7 7	B2
6	0 1 3 3 3 4 6 7 9	
7	1 2 2 5 8 8	
8	0 3	

Key: 7 | 2 represents 72 beats per minute B1 Total 3

17. (a) $= 15 \times 10 + 25 = 150 + 25 = \text{£}175$ M1 A1

(b) $115 - 25 = 90$ M1
 $90 \div 15 = 6$ lessons A1 Total 4

18.

Item	Quantity	Cost (£)
Carton of Juice	5	3.45
Bread roll	8	1.60
Cheddar Cheese	500 g	3.25
TOTAL		8.30

B1
B1
B1
B1

Total 4

19. (a) (i) $6xy$ B1

(ii) $2p^2$ B1

(iii) $4m - 2n$ M1 A1

(b) $a - 3 = 5b$ M1

$b = \frac{a - 3}{5}$ A1 Total 6

20. (a) $= x + (2x - 1) + (3x - 2) + (2x + 1)$ M1
 $= 8x - 2$ A1

(b) $8x - 2 = 34$ M1

$8x = 36$

$x = 36 \div 8 = 4.5$ M1

side lengths are 4.5, 8, 11.5, 10

longest side = 11.5 cm A1 Total 5

21. (a) (i) $= 8 - 2 = 6$

B1

(ii) 2 3 4 5 5 6 6 6 7 8
 median $= (5 + 6) \div 2 = 5.5$

M1 A1

(b)

No. Absent	No. Days	F × x
2	1	2
3	5	15
4	11	44
5	9	45
6	4	24

M1

mean $= (2 + 15 + 44 + 45 + 24) \div (1 + 5 + 11 + 9 + 4)$
 $= 130 \div 30 = 4.3$ (1dp)

M1

A1

Total 6

22. Bill charges $4 \times 70 = \text{£}280$

B1

area of walls $= 2 \times (4 \times 2.5) + 2 \times (6 \times 2.5) - (1 \times 2)$

M1

$= 2 \times 10 + 2 \times 15 - 2 = 20 + 30 - 2 = 48 \text{ m}^2$

A1

Ben charges $48 \times 6 = \text{£}288$

M1

Bill charges less by £8

A1

Total 5

23.

M1 A1

x	$x^3 - x$	too
4	60	small
5	120	big
4.5	86.6..	small
4.7	99.1..	small
4.8	105.7..	big
4.75	102.4..	big

$x = 4.7$ (1dp)

A1

Total 3

24. (a) $= 300 \times 1.44$
 $= \text{€}432$

M1

A1

(b) Travel Mart: $300 \times 1.48 = 444$
 after fee $= 0.98 \times 444 = 435.12$
 extra $= 435.12 - 432 = \text{€}3.12$

M1

M1 A1

Total 5

25. (a) $= 3 + 5 + 3 + 5 = 16 \text{ cm}$

B1

(b) $d^2 = 3^2 + 5^2$
 $d^2 = 9 + 25 = 34$

M1

$d = \sqrt{34} = 5.8 \text{ cm}$ (1dp)

M1 A1

Total 4

TOTAL FOR PAPER: 100 MARKS