



GCSE Bitesize Examinations
General Certificate of Secondary Education

MATHEMATICS
Foundation Tier

Paper 2 Calculator

Marking Scheme

Unless otherwise stated, correct answers only should be accepted.

1. (a) 27, 32 (1 mark)
(b) 1, -2 (1 mark)
(c) 35, 48 (2 marks)
2. (a) (i) 9cm^2 (1 mark)
(ii) 16cm (2 marks)
(b) Any shape with a perimeter of 15cm (whole sides only) (2 marks)
3. (a) 6 (1 mark)
(b) 7 (1 mark)
(c) 35 (2 marks)
1 mark for $\sqrt{35}$
4. (a) £5.20 or 520p (2 marks)
1 mark for showing $180 + 220 + 120$ or 1 mark only for £5.20 without workings.
(b) £4.80 or 480p (2 marks)
1 mark for showing $£10 - £5.20$ or 1 mark for £4.80 without showing workings.

5. (a)

Shape	Name
A	Hexagon
C or B	Isosceles Triangle
B or C	Isosceles triangle
D	Parallelogram
E	Trapezium

If one error give 1 mark, if two errors 0 marks.

(2 marks)

(b) B and C

(1 mark)

(c)

Shape	Number of lines of symmetry
A	6
B	1
C	1
D	0
E	1

If one error give 1 mark, if two errors 0 marks.

(2 marks)

6. (a) Any answer between 21 and 24

(1 mark)

(b) 50cm or 51cm

(1 mark)

(c) 7.4 kg 16.3 lb

(2 marks)

1 mark for each answer. For the second answer accept anything between 16.25 and 16.35.

7. (a) 7%, 0.65, $\frac{2}{3}$, 68%, $\frac{6}{7}$ (2 marks)
Give 1 mark only if one error.
- (b) £1.02 (2 marks)
1 mark for 1.017142857
- (c) £63.75 (2 marks)
1 mark for £11.25
8. (a) (i) 44° (1 mark)
(ii) Angles in a triangle add up to 180° (1 mark)
- (b) (i) 115° (1 mark)
(ii) Angles in a quadrilateral add up to 360° (1 mark)
- (c) 75° (2 marks)
1 mark for showing 150°
9. (a) \$1365 (2 marks)
- (b) £699 (2 marks)
1 mark for showing $1000 \div 1.43$ and 1 mark for £699.3006993 or £699.30
10. (a) 8 (1 mark)
- (b) 24 (2 marks)
1 mark for showing 8
- (c) One hundred thousand or hundred thousand. (1 mark)
11. (a) $p + 5$ (2 marks)
- (b) $\frac{p}{2}$ or $p \div 2$ (2 marks)
12. £470 (3 marks)
1 mark for showing £70
13. (a) *a.m. OK* (1 mark)
- (b) 5 (1 mark)
- (c) 39 (2 marks)
1 mark for showing $12 + 3 + 8 + 9 + 7$
- (d) $\frac{7}{39}$ or decimal equivalent 0.1794871795 (2 marks)

14. (a) 6 **(2 marks)**
1 mark for 5.64 or 5.6
- (b) 15 **(1 mark)**
- (c) £47.70 **(2 marks)**
1 mark for showing £50 AND 30p or £0.30 or 1 mark for £47.70 without showing workings.
15. (a) Chord **(1 mark)**
- (b) 201.0cm² or 201.1cm² **(3 marks)**
1 mark for showing $8^2 \times \pi$ or 1 mark for correct answer not rounded or missing units or both.
- (c) 150.796cm or 150.8cm **(3 marks)**
1 mark for showing 50.24 or 1 mark for showing $8 \times 2 \times \pi$ or 1 mark for the answer multiplied by 3.
16. (a) $\frac{17}{30}$ **(1 mark)**
- (b) $\frac{3}{5}$ **(2 marks)**
1 mark for showing 18/30 or 9/15.
17. (a) $\frac{5}{12}$ **(2 marks)**

(1 mark for $\frac{10}{24}$ or $\frac{20}{48}$)
- (b) 5:8:3 **(2 marks)**
18. $8x + 4y$ or $4y + 8x$ **(3 marks)**
(2 marks for $2(4x + 2y)$)
(1 mark for 8x or 4y seen)
(1 mark for $4x + 2y$)

19. (a) 19p or £0.19 (2 marks)
1 mark for showing $85 \div 450$ or 1 mark for 0.18888
- (b) 57p or £0.57 (2 marks)
1 mark for showing $120 \div 950 \times 450$ or 0.5684210526
- (c) Large because better value, costs less per gram, etc. (2 marks)
1 mark for small because people may not want much, it may not keep well, etc
20. (a) 13 (1 mark)
- (b) 8 (1 mark)
- (c) 5 (2 marks)
1 mark for showing $3x + 7 = 22$
21. (a) 7 (2 marks)
- (b) 11 (2 marks)
1 mark for showing correctly ordered list or
1 mark only for showing 8 and 14.
- (c) 23 (2 marks)
1 mark for showing 230
- (d) The mode is too small and there are lots of big values or similar. (1 mark)
- (e) Mean is best – the data is skewed/uneven and 1 mark for a suitable reason explaining that it takes into account all of the values. (2 marks)
22. (a) 23.9° (1 mark)
- (b) 6.6 secs or 6.7 secs (1 mark)
- (c) 5.6 ± 0.2 (2 marks)
1 mark for $27.5 (\pm 0.1) - 21.9 (\pm 0.1)$
- (d) $29^\circ \pm 0.5$ (2 marks)
23. Showing the working (2 marks)
- E.g. $3^2 + 3 \times 3 = 18$ (too small)
 $3.1^2 + 3 \times 3.1 = 18.91$ (too small)
 $3.3^2 + 2 \times 3.3 = 20.79$ (too big)
- 3.2 (2 marks)