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  
   (b) 1, −2  
   (c) 35, 48  

2. (a) (i) 9cm²  
   (ii) 16cm  
   (b) Any shape with a perimeter of 15cm (whole sides only)  

3. (a) 6  
   (b) 7  
   (c) 35  
    1 mark for ‘35  

4. (a) £5.20 or 520p  
   1 mark for showing 180 + 220 + 120 or 1 mark only for £5.20 without workings.  
   (b) £4.80 or 480p  
    1 mark for showing £10 − £5.20 or 1 mark for £4.80 without showing workings.  

5. (a) | Shape | Name            |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Hexagon</td>
</tr>
<tr>
<td>C or B</td>
<td>Isosceles Triangle</td>
</tr>
<tr>
<td>B or C</td>
<td>Isosceles triangle</td>
</tr>
<tr>
<td>D</td>
<td>Parallelogram</td>
</tr>
<tr>
<td>E</td>
<td>Trapezium</td>
</tr>
</tbody>
</table>

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 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
</tr>
</tbody>
</table>

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
1 mark for each answer. For the second answer accept anything between 16.25 and 16.35. (2 marks)
7. (a) 7%, 0.65, \(\frac{2}{3}\), 68%, \(\frac{6}{7}\)  
Give 1 mark only if one error.  
(b) £1.02  
1 mark for 1.017142857  
(c) £63.75  
1 mark for £11.25  
(2 marks)

8. (a) (i) 44° 
(ii) Angles in a triangle add up to 180°  
(b) (i) 115° 
(ii) Angles in a quadrilateral add up to 360°  
(c) 75°  
1 mark for showing 150°  
(1 mark)  
(1 mark)  
(1 mark)  
(2 marks)

9. (a) $1365  
(b) £699  
1 mark for showing 1000 ÷ 1.43 and 1 mark for £699.3006993 or £699.30  
(2 marks)  
(2 marks)

10. (a) 8  
(b) 24  
1 mark for showing 8  
1 mark for showing 8  
(c) One hundred thousand or hundred thousand.  
(1 mark)  
(2 marks)  
(1 mark)

11. (a) \(p + 5\)  
(b) \(\frac{p}{2}\) or \(p ÷ 2\)  
(2 marks)  
(2 marks)

12. £470  
1 mark for showing £70  
(3 marks)

13. (a) \(a.m. OK\)  
(b) 5  
(1 mark)  
(1 mark)

(c) 39  
1 mark for showing 12 + 3 + 8 + 9 + 7  
1 mark for showing 12 + 3 + 8 + 9 + 7  
(2 marks)

(d) \(\frac{7}{39}\) or decimal equivalent 0.1794871795  
(2 marks)
14. (a) 6  
1 mark for 5.64 or 5.6  
(b) 15  
(c) £47.70  
1 mark for showing £50 AND 30p or £0.30 or 1 mark for £47.70 without showing workings.  
(2 marks)  
(1 mark)  
(2 marks)

15. (a) Chord  
(b) 201.0cm² or 201.1cm²  
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  
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.  
(1 mark)  
(3 marks)  
(3 marks)

16. (a) $\frac{17}{30}$  
(b) $\frac{3}{5}$  
1 mark for showing 18/30 or 9/15.  
(1 mark)  
(2 marks)

17. (a) $\frac{5}{12}$  
(1 mark for $\frac{10}{24}$ or $\frac{20}{48}$)  
(b) 5:8:3  
(2 marks)  
(2 marks)

18. $8x + 4y$ or $4y + 8x$  
(2 marks for 2(4x + 2y))  
(1 mark for 8x or 4y seen)  
(1 mark for 4x + 2y)  
(3 marks)
19.  (a)  19p or £0.19
1 mark for showing $85 \div 450$ or 1 mark for 0.18888

(b)  57p or £0.57
1 mark for showing $120 \div 950 \times 450$ or 0.5684210526

(c)  Large because better value, costs less per gram, etc.
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
1 mark for showing $3x + 7 = 22$

21.  (a)  7
2 marks

(b)  11
1 mark for showing correctly ordered list or
1 mark only for showing 8 and 14.

(c)  23
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
1 mark for $27.5 \pm 0.1 - 21.9(\pm0.1)$

(d)  29° ± 0.5
2 marks

23.  Showing the working
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