

## Year 8 Autumn Core Paper A

| Question | Answer   | Marks | Notes and guidance  |
|----------|--|-------|---|
| 1        | 5 : 3  | 1     |   |
|          | 3 : 5  | 1     |   |
|          | $\frac{5}{8}$  | 1     |   |
| 2        | Ticks first, second and fourth boxes                       | 2     | Award 1 mark for 2 boxes correctly ticked and no other errors   |
| 3        | Plots all three points correctly                           | 2     | Award 1 mark for any two correct points   |
|          | Plots point at (-2,-1)                                     | 1     | Allow follow through – if all points above plotted in wrong order, then award the mark for (-1, -2)   |
| 4        | 31.4   | 2     | Award 1 mark for clear attempt to use a correct formula for circumference with correct values   |
| 5        | Circles cards showing $3a + 4a$ and $7a - a$ and no others | 1     | Accept any clear indication – circled, underlined, ticked etc.  |
|          | $\frac{2}{5}$  | 1     | Accept any equivalent form – 0.4, 40% etc.<br>Do not accept “2 in 5”, “2 out of 5” etc.<br>Follow through from their answer to first part i.e. if three cards indicated, accept 60% or equivalent |
| 6        | 750<br>3<br>300<br>225                                     | 2     | Award 1 mark for 2 or 3 correct answers   |
|          | e.g. “Because you can’t have half an egg”                  | 1     | Any reasonable explanation referring to eggs  |

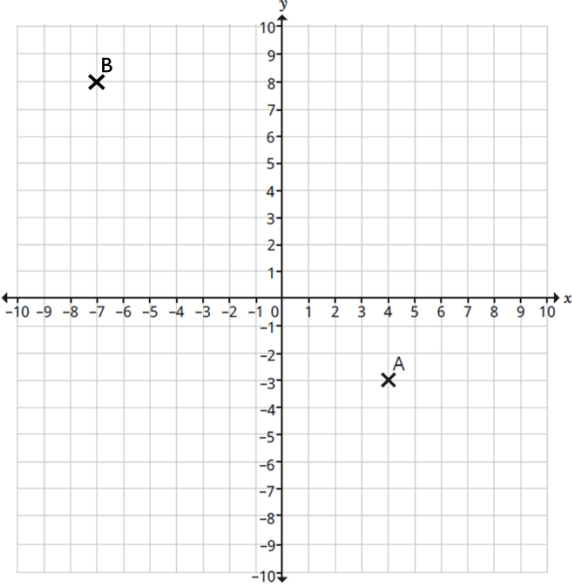
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|    |  |   |   |
|----|--|---|---|
| 7  | Indicates “No” and gives reason e.g. <ul style="list-style-type: none"> <li>• Because <math>5 \neq 4</math></li> <li>• Because the <math>x</math> and <math>y</math> values are different</li> </ul> | 1 | Accept any clear indication – circled, underlined, ticked etc.  |
|    | Indicates “Yes” and gives reason e.g. <ul style="list-style-type: none"> <li>• <math>6 - 2 \times 2 = 2</math></li> </ul>  | 1 | Accept any clear indication – circled, underlined, ticked etc.<br>Must explain why – do not accept incomplete explanations such as “Because it fits the equation”             |
| 8  | 250  | 1 | Accept 250.00, but not 250.0  |
|    | 18   | 2 | Accept 18.00, but not 18.0<br>Award 1 mark for clear attempt at $30 \times 60$ p or equivalent  |
| 9  | $0 < h \leq 10$  | 1 | Allow use of e.g. $x$ instead of $h$  |
|    | 43   | 1 |   |
| 10 | HH, HT, TH, TT   | 1 | Accept in any format e.g. table, but must be four outcomes exactly  |
|    | $\frac{1}{4}$  | 1 | Accept any equivalent form – 0.25, 25% etc.<br>Do not accept “1 in 4”, “1 out of 4”<br>Follow through from their answer to first part e.g. allow $\frac{1}{3}$ for HH, TH, TT |
| 11 | $\frac{1}{8}$  | 2 | Award 1 mark for attempt to find $\frac{3}{4} \div 6$ or equivalent calculation   |
| 12 | $y = 2$  | 1 |   |
|    | Draws $y = -2$ on the grid   | 1 | Must reach at least as far as $(-4, -2)$ and $(4, 2)$   |

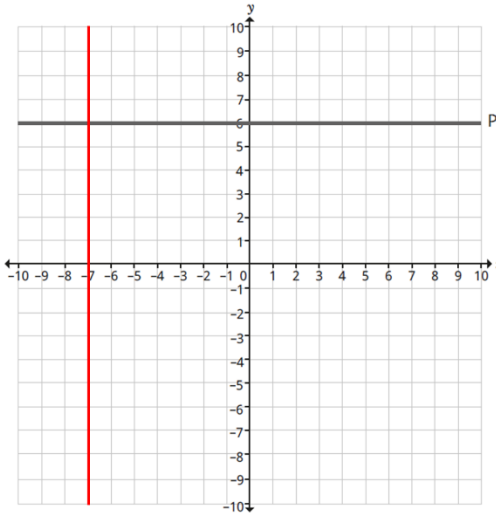
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|    |   |   |  |
|----|---|---|--|
| 13 | 350   | 3 | Award 2 marks for finding 525 (number of girls) instead<br>Award 1 mark for sight of 175 or clear attempt to find $875 \div 5$ |
| 14 | $(-1, -4)$  | 1 |  |
| 15 | 4.7   | 3 | Award 2 marks for 470 000 (cm) seen<br>Award 1 mark for clear attempt at $23.5 \times 20\ 000$                                 |
| 16 | Correct triangle drawn (vertices at $(0, -6)$ , $(4, -8)$ and $(0, -10)$ )  | 1 |  |
|    | $(0, 10)$<br>$(0, 14)$<br>$(-4, 12)$  | 2 | Award 1 mark for any two coordinates correct   |
| 17 | Says “No” and gives reason e.g. <ul style="list-style-type: none"> <li>• No correlation</li> <li>• The points aren’t close to a line</li> <li>• There’s no pattern, it doesn’t show a relationship</li> </ul> | 1 |  |
|    | Gives reason e.g. <ul style="list-style-type: none"> <li>• Babies can’t text</li> <li>• Very young people may not have a mobile phone</li> <li>• Older people might not use mobile phones</li> </ul>          | 1 |  |

# Year 8 Autumn Core Paper Mark Scheme

| Question | Answer  | Marks | Notes and guidance                             |
|----------|---|-------|--|
| 1        | (4, -3)   | 1     |  |
|          | Point plotted correctly<br> | 1     | Condone no label provided no other points seen |
| 2        | 4 : 7   | 1     |  |
| 3        | He has multiplied the numerator and the denominator by 8  | 1     | Any reasonable explanation.                    |
|          | $4\frac{4}{5}$  | 1     | Allow equivalent e.g. $\frac{24}{5}$           |

# Year 8 Autumn Core Paper Mark Scheme

| 4                            | <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Year 7</th> <th>Year 8</th> <th>Year 9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <th>Has a packed lunch</th> <td>81</td> <td>55</td> <td>47</td> <td>183</td> </tr> <tr> <th>Does not have a packed lunch</th> <td>44</td> <td>45</td> <td>43</td> <td>132</td> </tr> <tr> <th>Total</th> <td>125</td> <td>100</td> <td>90</td> <td>315</td> </tr> </tbody> </table> |        | Year 7   | Year 8 | Year 9 | Total | Has a packed lunch | 81 | 55 | 47 | 183 | Does not have a packed lunch | 44 | 45 | 43 | 132 | Total | 125 | 100 | 90 | 315 | 3 | <p>Award 2 marks for 4 or 5 correct values in the table<br/>Award 1 mark for 2 or 3 correct values in the table or consistent vales based on an incorrect value</p> |
|------------------------------|---|--------|--|--------|--------|-------|--------------------|----|----|----|-----|------------------------------|----|----|----|-----|-------|-----|-----|----|-----|---|---|
|                              | Year 7  | Year 8 | Year 9   | Total  |        |       |                    |    |    |    |     |                              |    |    |    |     |       |     |     |    |     |   |   |
| Has a packed lunch           | 81  | 55     | 47   | 183    |        |       |                    |    |    |    |     |                              |    |    |    |     |       |     |     |    |     |   |   |
| Does not have a packed lunch | 44  | 45     | 43   | 132    |        |       |                    |    |    |    |     |                              |    |    |    |     |       |     |     |    |     |   |   |
| Total                        | 125   | 100    | 90   | 315    |        |       |                    |    |    |    |     |                              |    |    |    |     |       |     |     |    |     |   |   |
| 5                            | <p><math>y = 6</math></p>  <p><math>(-7, 6)</math></p>  | 1      | <p>Award 1 mark for <math>x = -7</math> correct. Condone no label and slight inaccuracy if the intention is clear.</p> |        |        |       |                    |    |    |    |     |                              |    |    |    |     |       |     |     |    |     |   |   |

# Year 8 Autumn Core Paper Mark Scheme

|    |                        |   |  |
|----|------------------------|---|--|
| 6  | £5.90                  | 2 | Do not accept £5.9<br>Award 1 mark for correct method e.g. $£4.72 \div 8$ , 59p seen or attempt to find $£4.72 \div 4$ (£1.18) and multiply by 5 |
| 7  | 16                     | 1 |  |
|    | 5                      | 1 |  |
|    | 50                     | 1 |  |
| 8  | 12                     | 1 |  |
|    | 37.7 or $12\pi$        | 2 | Accept more accurate answers e.g. 37.699...<br>Award 1 mark for $12 \times \pi$ , $12 \times 3.14(\dots)$  |
| 9  | e.g. $6 \times 3 = 18$ | 1 | Any acceptable justification including diagrams.<br>e.g. $\frac{1}{3}$ of 18 = 6, $18 \div 3 = 6$  |
| 10 | $\frac{4}{5}$          | 1 |  |
|    | $\frac{3}{20}$         | 2 | Award 1 mark for $\frac{1}{5} \times \frac{3}{4}$ seen   |
|    | $\frac{4}{15}$         | 2 | Award 1 mark for $\frac{1}{5} \div \frac{3}{4}$ or equivalent seen   |

# Year 8 Autumn Core Paper Mark Scheme

|        |   |    |  |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
|--------|---|----|--|----|----|----|---|---|-----|----|----|----|----|----|-----------------------------------|--------|----|----|----|----|----|----|---|--|
| 11     | <table border="1"> <tr> <td>x</td> <td>-2</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td>-7</td> <td>-4</td> <td>-1</td> <td>2</td> <td>5</td> </tr> </table>  | x  | -2   | -1 | 0  | 1  | 2 | y | -7  | -4 | -1 | 2  | 5  | 2  | Award 1 mark for 2 correct values |        |    |    |    |    |    |    |   |  |
|        | x   | -2 | -1   | 0  | 1  | 2  |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| y      | -7  | -4 | -1   | 2  | 5  |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
|        | Straight line drawn from (-2, -7) to (2, 5)   | 2  | Award 1 mark for at least four or their values correctly plotted   |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| 12     | <table border="1"> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>Red</td> <td>R1</td> <td>R2</td> <td>R3</td> <td>R4</td> <td>R5</td> <td>R6</td> </tr> <tr> <td>Yellow</td> <td>Y1</td> <td>Y2</td> <td>Y3</td> <td>Y4</td> <td>Y5</td> <td>Y6</td> </tr> </table> |    | 1  | 2  | 3  | 4  | 5 | 6 | Red | R1 | R2 | R3 | R4 | R5 | R6                                | Yellow | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | 1 |  |
|        |   | 1  | 2  | 3  | 4  | 5  | 6 |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| Red    | R1  | R2 | R3   | R4 | R5 | R6 |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| Yellow | Y1  | Y2 | Y3   | Y4 | Y5 | Y6 |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
|        | $\frac{1}{4}$   | 2  | Allow any equivalent from e.g. $\frac{3}{12}$ , 25% etc.<br>Award 1 mark for 3 out of incorrect total or incorrect numerator with denominator of 12<br>Follow through from their table for both marks. |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| 13     | 3   | 1  |  |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
|        | 51.6  | 1  |  |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
|        | 14  | 1  |  |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| 14     | Spain, with correct working e.g.<br>$€479 = £423.89 < £429$ or<br>$£429 = €487.77 > €479$ etc.  | 2  | Award 1 mark for a correct conversion but no comparison<br>No marks for Spain circled with no working.   |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
| 15     | $\frac{3}{5}$   | 1  |  |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |
|        | £39   | 2  | Award 1 mark for correct method to find one fifth of £97.50 and attempt to multiply by 2 or 3  |    |    |    |   |   |     |    |    |    |    |    |                                   |        |    |    |    |    |    |    |   |  |

# Year 8 Spring Core Paper



| Question | Answer                      | Marks | Notes and guidance   |
|----------|-----------------------------|-------|--|
| 1        | 8.1                         | 1     |  |
|          | 16                          | 1     |  |
| 2        | m                           | 1     | Accept any clear indication – circled, underlined, ticked etc. |
|          | g                           | 1     | Accept any clear indication – circled, underlined, ticked etc. |
|          | 3500                        | 1     |  |
| 3        | ><br><                      | 2     | Award 1 mark for each correct answer                           |
| 4        | 3 : 5                       | 1     | Accept any clear indication – circled, underlined, ticked etc. |
|          | $\frac{3}{8}$ or equivalent | 1     | e.g. $\frac{15}{40}$ , 0.375, 37.5% etc.                       |
|          | 0                           | 1     |  |
| 5        | $a^9$                       | 1     |  |
|          | $b^3$                       | 1     |  |
| 6        | equation                    | 1     | Accept any clear indication – circled, underlined, ticked etc. |
|          | identity                    | 1     | Accept any clear indication – circled, underlined, ticked etc. |



# Year 8 Spring Core Paper

|    |   |   |  |
|----|---|---|--|
| 7  | $x = 95$  | 1 | Accept just 95   |
|    | $y > 3$   | 2 | Award 1 mark for correct first step ( $4y > 12$ or $y + \frac{3}{4} > \frac{15}{4}$ )          |
| 8  | £156.40   | 2 | Award 1 mark for correct method e.g. $0.23 \times 680$<br>Do not allow full marks for (£)156.4 |
| 9  | $\frac{3}{5}$   | 1 | Allow equivalent fractions, but do not accept any other form                                   |
|    | 40%   | 1 |  |
|    | 30  | 2 | Award 1 mark for correct method e.g. attempting $18 \div 3 \times 5$                           |
| 10 | States test 2 and shows justification e.g. $4 \text{ out of } 19 = 73.6\% > 72\%$ | 2 | Award 1 mark for 4 out of 19 converted to a percentage or both marks converted to decimals     |
| 11 | 21  | 1 |  |
|    | 37 and 41   | 1 |  |
|    | 170   | 1 |  |
| 12 | 1300  | 1 |  |
|    | $5.6 \times 10^{-4}$  | 1 |  |
| 13 | $5(5 + 2p)$   | 1 |  |
|    | $11m + 3$   | 2 | Award 1 mark for correct expansion of $3(2m + 1)$  |
| 14 | 16<br>0   | 2 | Award 1 mark for each correct answer   |
|    | Indicates $x = 3$ and $y = 10$  | 1 | Accept any clear indication – circled, underlined, ticked etc.                                 |

## Year 8 Spring Core Paper

|    |  |   |   |
|----|--|---|---|
| 15 | States yes and justifies answer e.g.<br>“Yes because 10% of 68 is 6.8, so the angle will be 74.8 degrees which is between 70 and 75” | 2 | Award 1 mark for fully correct method to increase 68 by 10% e.g. $68 \times 1.1$ etc. |
| 16 | Chooses Jenny and justifies answer e.g.<br>“ $4n^2 = 36$ but $(4n)^2 = 144$ ”  | 2 | Award 1 mark for either expression worked out correctly and no incorrect working      |

# Year 8 Spring Core Paper Mark Scheme

| Question | Answer  | Marks | Notes and guidance  |     |       |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
|----------|---|-------|---|-----|-------|-------|-------|--------|----|----|----|----|-----|--------|----|----|----|----|-----|-------|-----|----|----|-----|-----|---|--|
| 1        | $\frac{1}{4} \times \frac{2}{5} = \frac{2}{20} = \frac{1}{10}$  | 2     | Award 1 mark for attempt to multiply numerators and denominators or $0.25 \times 0.4 = 0.1$ seen<br>Award 2 <sup>nd</sup> mark for fully correct  |     |       |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| 2        | £25.30  | 3     | Award 1 mark for any of $10 \times 91p$ <b>or</b> $4 \times £1.05$ <b>or</b> $5 \times £2.40$ seen<br>Award 2 <sup>nd</sup> mark for $10 \times 91p$ <b>and</b> $4 \times £1.05$ <b>and</b> $5 \times £2.40$ and attempt to find the total seen<br>Do not accept £25.3 for 3 <sup>rd</sup> mark |     |       |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| 3        | <table border="1"> <thead> <tr> <th></th> <th>Walk</th> <th>Bus</th> <th>Car</th> <th>Other</th> <th>Total</th> </tr> </thead> <tbody> <tr> <th>Year 7</th> <td>56</td> <td>42</td> <td>25</td> <td>57</td> <td>180</td> </tr> <tr> <th>Year 8</th> <td>45</td> <td>32</td> <td>30</td> <td>53</td> <td>160</td> </tr> <tr> <th>Total</th> <td>101</td> <td>74</td> <td>55</td> <td>110</td> <td>340</td> </tr> </tbody> </table> |       | Walk  | Bus | Car   | Other | Total | Year 7 | 56 | 42 | 25 | 57 | 180 | Year 8 | 45 | 32 | 30 | 53 | 160 | Total | 101 | 74 | 55 | 110 | 340 | 2 | Award 1 mark for at least 3 correct values found |
|          |   | Walk  | Bus   | Car | Other | Total |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| Year 7   | 56  | 42    | 25  | 57  | 180   |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| Year 8   | 45  | 32    | 30  | 53  | 160   |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| Total    | 101   | 74    | 55  | 110 | 340   |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
|          | $\frac{101}{340}$   | 1     | Follow through their $(56 + 45) \div 340$<br>Accept any equivalent form e.g. 0.297...   |     |       |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| 4        | 12.5%   | 2     | Award 1 mark for $\frac{1}{8}$ or $4 \div 32$ seen or implied   |     |       |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |
| 5        | 160 cm <sup>2</sup>   | 2     | Award 1 mark for any appropriate rounding seen e.g. $8 \times 20$ . Condone $8 \times 19$ for 1 mark  |     |       |       |       |        |    |    |    |    |     |        |    |    |    |    |     |       |     |    |    |     |     |   |  |

# Year 8 Spring Core Paper Mark Scheme

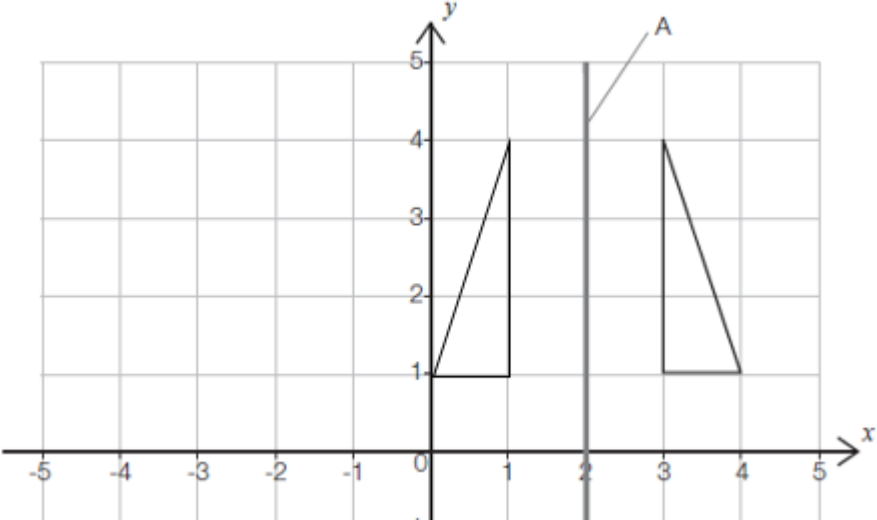
|    |                                      |   |   |
|----|--------------------------------------|---|---|
| 6  | 6                                    | 1 |   |
|    | Straight line going through (0, 0)   | 1 | Accept any reasonable explanation<br>Must include “straight line” and “passing through origin/(0, 0)”   |
|    | £90                                  | 2 | Award 1 mark for any correct method e.g. multiplying their answer to the first part by 15               |
| 7  | $12 - 3x$                            | 1 |   |
|    | $7y + 8$                             | 2 | Award 1 mark for each correct term  |
|    | $2x(x + 4)$                          | 2 | Award 1 mark for partial factorisation e.g. $2(x^2 + 4x)$ or $x(2x + 8)$                                |
| 8  | £58                                  | 2 | Award 1 mark for $5,690.38 \div 98.11$  |
| 9  | 0.4 is not between 1 and 10          | 1 | Accept any reasonable explanation.  |
|    | $3.2 \times 10^8$                    | 1 |   |
|    | $6.5 \times 10^{-4}$                 | 1 |   |
| 10 | e.g. “Ron has increased 700 by 30%”, | 1 | Accept any reasonable explanation e.g. “It should be $700 \times 1.03$ ”                                |
|    | $700 \times 1.03 = 721$              | 1 |   |
|    | 679                                  | 2 | Award 1 mark for any fully correct method e.g. $\times 0.97$ , attempt to find 3% and subtract from 700 |
| 11 | 64                                   | 1 |   |
|    | $p^{16}$                             | 1 |   |

# Year 8 Spring Core Paper Mark Scheme



|    |   |   |  |
|----|---|---|--|
| 12 | 66  | 1 |  |
| 12 | $5n + 16 = 511$<br>$n = 99$<br>Yes, it is the 99 <sup>th</sup> term in the sequence | 3 | Award 1 mark for forming $5n + 16 = 511$<br>Award 2 <sup>nd</sup> mark for correct method to solve their three-term equation<br>Award final mark for justification e.g. reference to the position or “because $n$ is an integer”<br>Do not accept decision without supporting working. |
| 13 | 62.8 cm (or $20\pi$ cm)   | 2 | Award 1 mark for correct method to find circumference seen or implied<br>Award 1 mark for correct units (e.g. accept 0.628m for 2 marks)   |
| 14 | 26 400  | 2 | Award 1 mark for any correct multiplication seen or implied  |

# Year 8 Summer Core Mark Scheme

| Question | Answer  | Marks | Notes and guidance  |
|----------|---|-------|---|
| 1        | <p>Correct reflection as shown</p>  | 2     | Award 1 mark for triangle reflected correctly but in the wrong position e.g. reflected in the y-axis. |
|          | Indicates $x = 2$   |       | 1   |
| 2        | Completes the table with all three values correct: $-4$ , $-1$ and $2$  | 2     | Award 1 mark for any two values correct   |
|          | Plots graph correctly i.e. straight line from $(-2, -7)$ to $(2, 5)$  | 2     | Award 1 mark for plotting at least 4 out of 5 of their points correctly                               |

## Year 8 Summer Core Mark Scheme

|   |   |   |   |
|---|---|---|---|
| 3 | $3(d + 2) + 3d + 1 \equiv 3d + 6 + 3d + 1 \equiv 6d + 7$  | 2 | Condone use of = instead of $\equiv$<br>Award 1 mark for correct expansion of brackets  |
|   | $6d + 7 = 52$<br>$6d = 45$<br>$d = 7.5$   | 2 | Award 1 mark for correct first step e.g. subtracting 7 from both sides or dividing all the terms by 6   |
| 4 | Completes frequencies and tallies correctly i.e.<br>Romance 6<br>Comedy 8<br>Action 9<br>Horror 1   | 3 | Award 2 marks for all frequencies or tallies correct, but other representation incorrect/missing<br><br>Award 1 mark for any two correct frequencies or tallies |
| 5 | 224   | 2 | Award 1 mark for attempt to multiply 200 by 1.12  |
|   | 280   | 2 | Award 1 mark for attempt to find 65% or 35% of 800  |
| 6 | Any one of: <ul style="list-style-type: none"> <li>No time frame</li> <li>Overlapping response boxes</li> <li>Not all possible responses covered (e.g. “No box for over £50”, “No box for £0” etc.)</li> </ul>                  | 1 |   |
|   | Question addresses <b>at least two</b> of the issues above e.g. <ul style="list-style-type: none"> <li>“How much to you spend on books per week/month?”</li> <li>No overlaps</li> <li>All possible responses covered</li> </ul> | 2 | Award 1 mark for addressing <b>any one</b> of the issues  |

## Year 8 Summer Core Mark Scheme

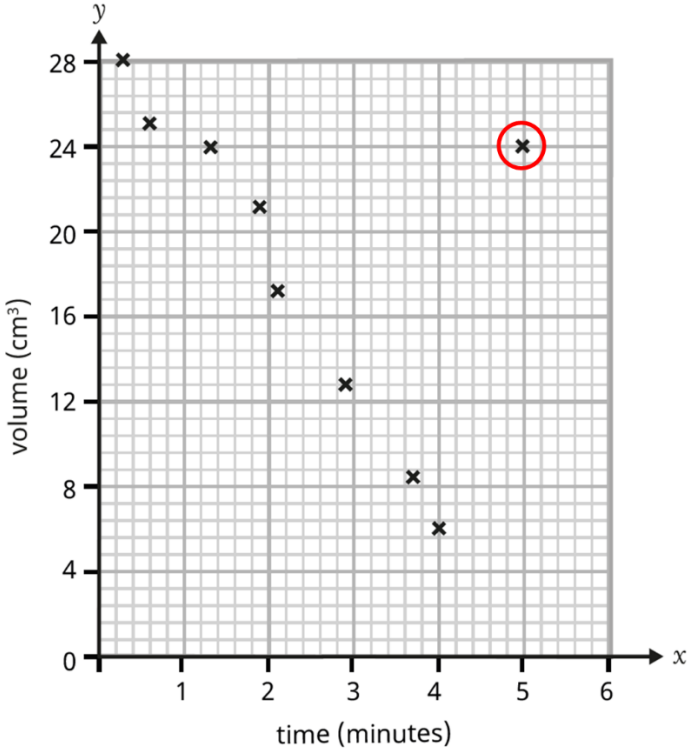
|    |   |   |   |
|----|---|---|---|
| 7  | 44  | 1 |   |
|    | 11  | 1 |   |
|    | 18  | 2 | Award 1 mark for attempt to find the total and divide this by 5   |
|    | e.g. Mean will be affected by the outlier   | 1 | Accept any reasonable explanation   |
| 8  | 75%   | 2 | Award 1 mark for $\frac{18}{24}$ seen or implied  |
|    | 16<br>400   | 2 | Award 1 mark for each correct answer  |
| 9  | <b>Angles on a straight line add up to 180°</b><br><b>Alternate angles are equal</b>  | 2 | Accept in either order<br>Language must be fully correct with words in bold (or equivalent) seen e.g. do <b>not</b> accept: <ul style="list-style-type: none"> <li>• Angles on a line add up to 180°</li> <li>• It's a straight line</li> <li>• They are alternate angles</li> </ul> Award 1 mark for each correct reason |
|    | 900°  | 2 | Award 1 mark for attempt to multiply 180° by 5  |
| 10 | States a value from 15% to 20% inclusive  | 1 |   |
|    | e.g. <ul style="list-style-type: none"> <li>• The football team may have played more games altogether</li> <li>• We don't know how many games the teams played</li> </ul> | 1 | Any reasonable explanation  |



## Year 8 Summer Core Mark Scheme

|    |     |   |  |
|----|-----|---|--|
| 11 | 314 | 2 | Accept $100\pi$ or anything that rounds to $314 \text{ cm}^2$<br>Award 1 mark for attempt to use $A = \pi r^2$ with $r = 10$ seen or implied |
|    | 240 | 2 | Award 1 mark for attempt to use $A = \frac{1}{2}(a + b)h$<br>with correct values or any other complete correct method.                       |

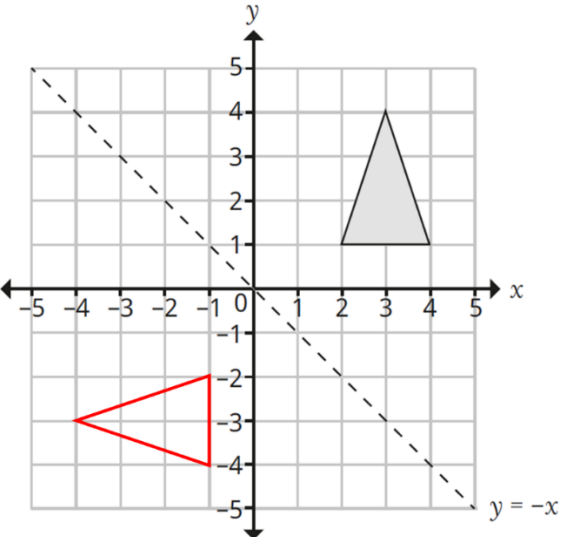
# Year 8 Summer Core Paper Mark Scheme

| Question | Answer  | Marks | Notes and guidance   |
|----------|---|-------|--|
| 1        |  <p>The scatter plot shows the following data points: (0.5, 28), (0.7, 25), (1.2, 24), (1.8, 21), (2.0, 17), (2.8, 13), (3.8, 9), (4.0, 6), (5.0, 24), and (5.0, 6). The point at (5, 24) is circled in red.</p> | 1     | Accept any clear indication of the point at (5, 24)  |
| 2        | 720°  | 2     | Award 1 mark for correct method e.g. $4 \times 180$ seen   |
| 3        | 7:25 pm   | 2     | Award 1 mark for any correct method for the addition of 105 minutes, including partitioning e.g. +20 +60 +25 minutes |

# Year 8 Summer Core Paper Mark Scheme

|   |                                     |   |  |
|---|-------------------------------------|---|--|
|   |                                     |   | Do not accept 7:25 without pm<br>Accept 19:25  |
| 4 | (S,C) given      (M, C)      (P, C) | 2 | Award 1 mark for correct method with no more than 1 error/omission.<br>Condone missing brackets and commas.<br>Allow non-abbreviated items in lists. |
|   | (S, B)      (M, B)      (P, B)      |   |  |
|   | (S, L)      (M, L)      (P, L)      |   |  |
|   | (S, F)      (M, F)      (P, F)      |   |  |
|   | $\frac{1}{12}$                      | 1 | Follow through from their list. Accept any equivalent fraction, decimal or percentage.   |
| 5 | $\frac{2}{5}$                       | 2 | Award 1 mark for finding $\frac{8}{20}$ or any other form  |
| 6 | $1 - 5x$ expression                 | 2 | Award 1 mark for any two correct matches.  |
|   | $C = \pi d$ equation                |   |  |
|   | $3p - 8 = 1$ identity               |   |  |
|   | $2(x + 3) \equiv 2x + 6$ formula    |   |  |
| 7 | 32 km                               | 1 |  |
|   | 640 km                              | 1 | Follow through their "32" $\times$ 20  |

# Year 8 Summer Core Paper Mark Scheme

|    |  |   |   |
|----|--|---|---|
| 8  | $7\frac{1}{5}$   | 2 | Award 1 mark for any other correct answer e.g. $\frac{36}{5}$ or 7.2 seen   |
| 9  | Completes both coordinates correctly i.e. (3, 13) (4, 17)  | 1 |   |
|    | e.g. "Add 4 to the previous term", "Add four every time"   | 1 | Accept any correct description of term-to-term rule<br>Do not accept just "add 4"   |
| 10 | Any two of: <ul style="list-style-type: none"> <li>No timeframe indicated in the question e.g. per week</li> <li>Option box descriptions are too vague</li> <li>No option for no time</li> </ul> | 2 | Award 1 mark for each reason  |
| 11 | 66 560   | 2 | Award 1 mark for complete correct method e.g. $64\,000 \times 1.04$ or $64\,000 + 0.04 \times 64\,000$ seen                                       |
| 12 |    | 2 | Award 1 mark for incorrectly positioned image but in correct orientation and size OR two of the three vertices in the image correctly positioned. |



# Year 8 Summer Core Paper Mark Scheme

|    |  |   |  |
|----|--|---|--|
| 16 | $5^{10}$   | 1 |  |
| 17 | $1.325 \times 10^8$  | 2 | Award 1 mark for correct value not in standard form  |
| 18 | $h = 82^\circ$ because <u>co-interior angles sum to <math>180^\circ</math></u> | 2 | Award 1 mark for correct value of $h$<br>Award 1 mark for correct reason.<br>Accept “allied angles” for “co-interior” but no accept supplementary.   |
| 19 | $1953 \text{ cm}^2$  | 3 | Award 1 mark for correctly calculating the area of the semi-circle $\frac{\pi \times 15^2}{2} = 353.429 \dots$ or $\frac{225\pi}{2}$<br>Award 1 mark for correctly calculating the area of the trapezium $\frac{1}{2} \times (30 + 50) \times 40 = 1600$<br>Award full marks for awrt 1953 |