



basic education

Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA

**GEC PILOT STUDY  
MARKING GUIDELINES 2024  
MATHEMATICS PAPER 1  
GRADE 9**

**SECTION A**

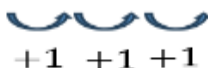

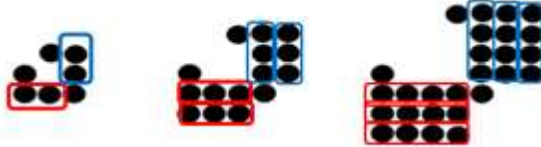
- One mark per answer.
- No half marks may be allocated.
- Tick (✓) only the correct answer and underline the incorrect answer.

| No. |   | Expected answer      | Key (✓) | Rational/Clarification   |
|-----|---|----------------------|---------|--|
| 1.  | D | $\frac{8}{0}$        | ✓       | A number divided by zero is undefined.   |
| 2.  | B | 5                    | ✓       | $125 = 5 \times 5 \times 5$<br>$200 = 2 \times 2 \times 2 \times 5 \times 5$<br>$510 = 2 \times 3 \times 5 \times 17$<br>HCF = 5   |
| 3.  | A | 1 800                | ✓       | $75 = 3 \times 5 \times 5$<br>$450 = 2 \times 3 \times 3 \times 5 \times 5$<br>$1800 = 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 5$<br>LCM = $2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 5$ |
| 4.  | C | Indirect proportion. | ✓       | As time decreases, the speed increases with the product of time and speed remaining constant.  |

| No. |   | Expected answer              | Key (✓) | Rational/Clarification  |
|-----|---|------------------------------|---------|---|
| 5.  | C | $\frac{2}{3}$ hour           | ✓       | $\text{Speed} = \frac{d}{t}$ $= \frac{6}{24}$ $= 0,25 \text{ km/h}$ $\text{Time} = \frac{d}{s}$ $= \frac{10}{0,25}$ $= 40 \text{ min}$ $= \frac{2}{3} \text{ h}$ <p><b>OR</b></p> $\text{Speed} = \frac{d}{t}$ $= \frac{6}{24 \div 60}$ $= 15 \text{ km/h}$ $\text{Time} = \frac{d}{s}$ $= \frac{10}{15}$ $= \frac{2}{3} \text{ h}$ |
| 6.  | A | 4,5 %                        | ✓       | $2023 - 2006 = 17 \text{ years}$ $A = P(1+i)^n$ $R11\,291,45 = R5300 \left(1 + \frac{i}{100}\right)^{17}$ $\left(\sqrt[17]{\frac{11291,45}{5300}} - 1\right) \times 100 = i$ $4,5 \% = i$   |
| 7.  | C | $(-a \times e)(b \times -g)$ | ✓       | Changing the order of factors does not change the product.  |
| 8.  | B | $-\frac{1}{5}$ and 5         | ✓       | <p>The sum of additive inverses is zero.</p> <p>The product of multiplicative inverses is 1.</p>  |
| 9.  | A | 22                           | ✓       | $6 - (3 - 5) + 9 - (-15) \div 3$ $= 6 - (-2) + 9 - (-5)$ $= 22$   |
| 10. | A | -21                          | ✓       | $\frac{5(3)(4) - 5(3 - (4) \times 3)}{-3 - 2}$ $= \frac{60 - 5(-9)}{-5}$ $= \frac{60 + 45}{-5}$ $= -21$   |

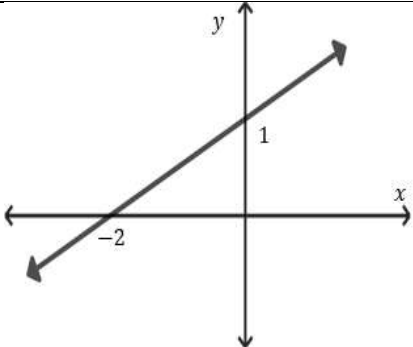
| No. |   | Expected answer        | Key (✓) | Rational/Clarification   |
|-----|---|------------------------|---------|--|
| 11. | D | -1                     | ✓       | $\frac{\sqrt[3]{125} - 3^2 + 0 + 1}{-4 + \sqrt{121} - \sqrt[3]{64}}$ $= \frac{5 - 9 + 0 + 1}{-4 + 11 - 4}$ $= \frac{-3}{3}$ $= -1$   |
| 12. | A | 16                     | ✓       | $\left( \frac{\frac{\sqrt[3]{27} + \sqrt{\frac{50}{2}}}{4^2 - \sqrt[3]{8}}}{\sqrt{49}} \right)^2$ $= \left( \frac{3 + 5}{\frac{16 - 2}{7}} \right)^2$ $= \left( 8 \times \frac{7}{14} \right)^2$ $= 16$  |
| 13. | A | $6n^5$                 | ✓       | $3n^3 \times 2n^2$ $= 3 \times 2 \times n^{3+2}$ $= 6n^5$  |
| 14. | B | $-8x^6y^3$             | ✓       | $(-2x^2y)^3$ $= (-2)^3(x^2)^3y^3$ $= -8x^6y^3$   |
| 15. | A | 6                      | ✓       | $2^{-2} \times 6^3 \times 3^{-2}$ $= 2^{-2} \times (2 \times 3)^3 \times 3^{-2}$ $= 2^{-2} \times 2^3 \times 3^3 \times 3^{-2}$ $= 2^{-2+3} \times 3^{3-2}$ $= 2^1 \times 3^1$ $= 6$ <p><b>OR</b></p> $\frac{1}{4} \times \frac{\overset{6}{216}}{1} \times \frac{1}{9}$ $= 6$ |
| 16. | C | $\frac{-3}{x^2y^{11}}$ | ✓       | $-3(x^{-1}y^2)^{-3} \times (xy)^{-5}$ $= -3x^3y^{-6} \times x^{-5}y^{-5}$ $= -3x^{3-5}y^{-6-5}$ $= -3x^{-2}y^{-11}$ $= \frac{-3}{x^2y^{11}}$   |

| No.   | Expected answer  | Key<br>(✓) | Rational/Clarification  |
|-------|------------------|------------|---|
| 17. B | $\frac{y^4}{4}$  | ✓          | $\left(\frac{y^2 + \frac{1}{y^{-2}}}{y^2 \times y^2}\right)^{-2}$ $\left(\frac{y^2 + y^2}{y^2 \times y^2}\right)^{-2}$ $= \left(\frac{2y^2}{y^{2+2}}\right)^{-2}$ $= \left(\frac{2^{-2} \times y^{-4}}{y^{-8}}\right)$ $= \frac{4^{-1} \times y^{-4}}{y^{-8}}$ $= 4^{-1} \times y^{-4+8}$ $= \frac{y^4}{4}$ <p><b>OR</b></p> $\left(\frac{y^2 + \frac{1}{y^{-2}}}{y^2 \times y^2}\right)^{-2}$ $\left(\frac{y^2 + y^2}{y^2 \times y^2}\right)^{-2}$ $= \left(\frac{2y^2}{y^{2+2}}\right)^{-2}$ $= \left(\frac{y^4}{2y^2}\right)^2$ $= \frac{y^8}{4y^4}$ $= \frac{y^4}{4}$ |
| 18. D | $\frac{2y^2}{x}$ | ✓          | $\frac{\sqrt{4x^6y^{-2}} \times (x^2)^{-2}}{(2x)^0y^{-3}}$  |

| No. | Expected answer   | Key<br>(✓) | Rational/Clarification  |
|-----|---|------------|---|
|     |   |            | $= 2x^{3-4}y^{-1+3}$ $= 2x^{-1}y^2$ $= \frac{2y^2}{x}$  |
| 19. | B<br>Add 1 to the previous term to get the next term.                                   | ✓          | $\frac{1}{2}; \frac{3}{2}; \frac{5}{2}; \frac{7}{2}; \dots$   |
| 20. | A<br>8; 13  | ✓          | 0; 1; 1; 2; 3; 5; 8; 13<br>Add the previous two terms to determine the next term. (Fibonacci)   |
| 21. | C<br> | ✓          |  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Pattern 1</p> <p>2 dots</p> <p>1 row</p> <p>1 column</p> <p>3 anchor dots in each pattern</p> </div> <div style="text-align: center;"> <p>Pattern 2</p> <p>3 dots</p> <p>2 rows</p> <p>2 columns</p> </div> <div style="text-align: center;"> <p>Pattern 3</p> <p>4 dots</p> <p>3 rows</p> <p>3 columns</p> </div> </div> |
| 22. | A<br>$324 \text{ cm}^2$   | ✓          | $9^{\text{th}}$ square's side = 18 cm<br>Area = $s^2$<br>$= (18 \text{ cm})^2$<br>$= 324 \text{ cm}^2$  |
| 23. | D<br>$-3pq^2r$ and $5pq^2r$   | ✓          | Like terms have the same variables with the same exponents.   |
| 24. | D<br>3  | ✓          | The term with the smallest coefficient is $-2x^3$ and the exponent of $x$ is 3.   |
| 25. | D<br>3  | ✓          | Only plus and minus signs separate terms.   |
| 26. | A<br>$-6y^3 + 12y^2 - 1$  | ✓          | $-3y(2y^2 - 4y) - 1$<br>$= -6y^3 + 12y^2 - 1$   |
| 27. | D<br>$5y^2 + 3y - 2$  | ✓          | $\frac{15y^3 - 3y(-y + 2) + 6y^2}{3y}$ $= \frac{15y^3 + 3y^2 - 6y + 6y^2}{3y}$ $= \frac{15y^3 + 9y^2 - 6y}{3y}$ $= 5y^2 + 3y - 2$   |
| 28. | C<br>$\frac{5y^4}{4}$   | ✓          | $\sqrt{y^8 + \frac{9}{16}y^8}$  |

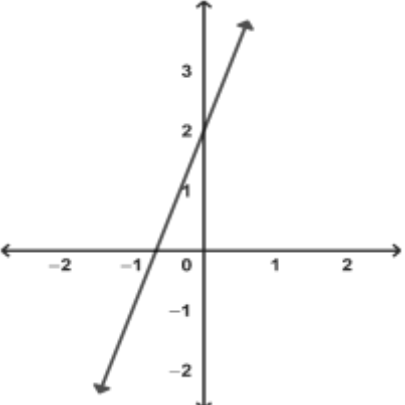
| No. |   | Expected answer            | Key (✓) | Rational/Clarification  |
|-----|---|----------------------------|---------|---|
|     |   |                            |         | $= \sqrt{\frac{16y^8 + 9y^8}{16}}$ $= \sqrt{\frac{25y^8}{16}}$ $= \frac{5y^4}{4}$   |
| 29. | B | $16x^2 - 4x + \frac{1}{4}$ | ✓       | $\left(4x - \frac{1}{2}\right)^2$ $= \left(4x - \frac{1}{2}\right)\left(4x - \frac{1}{2}\right)$ $= 16x^2 - 2x - 2x + \frac{1}{4}$ $= 16x^2 - 4x + \frac{1}{4}$ |
| 30. | C | 16                         | ✓       | $\frac{9p^2 - 8q}{r}$ $= \frac{9(-1)^2 - 8\left(\frac{1}{8}\right)}{\frac{1}{2}}$ $= \frac{9 - 1}{\frac{1}{2}}$ $= 8 \times 2$ $= 16$                           |
| 31. | A | $(5a - 4b)(5a + 4b)$       | ✓       | $25a^2 - 16b^2$ $= (5a - 4b)(5a + 4b)$  |
| 32. | C | $(y - 7)(y - 4)$           | ✓       | $y^2 - 11y + 28$ $= (y - 7)(y - 4)$   |
| 33. | B | $9(p - 2)(p + 5)$          | ✓       | $9p^2 + 27p - 90$ $= 9(p^2 + 3p - 10)$ $= 9(p - 2)(p + 5)$  |
| 34. | C | $\frac{2(a - 2)}{a + 2}$   | ✓       | $\frac{2a^2 - 10a + 12}{a(a + 2) - 3(a + 2)}$ $= \frac{2(a^2 - 5a + 6)}{(a + 2)(a - 3)}$ $= \frac{2(a - 2)(a - 3)}{(a + 2)(a - 3)}$ $= \frac{2(a - 2)}{a + 2}$  |
| 35. | C | $4 - p - q$                | ✓       | $\frac{48r - 3r(p + q)^2}{12r + 3pr + 3qr}$ $= \frac{3r[16 - (p + q)^2]}{12r + 3pr + 3qr}$  |

| No. |   | Expected answer     | Key (✓) | Rational/Clarification  |
|-----|---|---------------------|---------|---|
|     |   |                     |         | $= \frac{3r[4 - (p + q)][4 + (p + q)]}{3r(4 + p + q)}$ $= \frac{3r[4 - p - q][4 + p + q]}{3r(4 + p + q)}$ $= 4 - p - q$ |
| 36. | D | $\frac{1}{2}$       | ✓       | $-2 = -4m$ $\frac{-2}{-4} = m$ $m = \frac{1}{2}$  |
| 37. | B | -14                 | ✓       | $\frac{a}{7} = -2$ $a = -14$  |
| 38. | A | $x = 4$             | ✓       | $(x - 4)^2 = 0$ $x - 4 = 0$ $x = 4$   |
| 39. | C | $x = 3$ or $x = 1$  | ✓       | $(x - 3)(1 - x) = 0$ $x - 3 = 0 \text{ or } 1 - x = 0$ $x = 3 \text{ or } -x = -1$ $x = 1$                              |
| 40. | D | $y = 2x - 3$        | ✓       | $y$ is the selling price, $x$ is the cost price.<br>Selling price = double cost price minus three.                      |
| 41. | A | 5                   | ✓       | $4(x - 1) = 16$ $x - 1 = 4$ $x = 5$   |
| 42. | C | (1; 1)              | ✓       | $y = x^2 - 1$ $1 \neq (1)^2 - 1$ <p>Does NOT satisfy the equation.</p>  |
| 43. | B | $x = 6$ or $x = -3$ | ✓       | $x^2 - 3x - 18 = 0$ $(x - 6)(x + 3) = 0$ $x = 6 \text{ or } x = -3$   |
| 44. | B | -1                  | ✓       | $2^m + 0,5 = 1$ $2^m = 1 - \frac{1}{2}$ $2^m = 2^{-1}$ $m = -1$   |
| 45. | A | 0 or $\frac{1}{4}$  | ✓       | $\frac{6x}{3} - x = 4x^2$ $6x - 3x = 12x^2$ $12x^2 - 3x = 0$ $3x(4x - 1) = 0$ $x = 0 \text{ or } x = \frac{1}{4}$       |

| No.    |     | Expected answer   | Key (✓) | Rational/Clarification   |       |    |   |   |   |        |     |    |   |   |
|--------|-----|---|---------|--|-------|----|---|---|---|--------|-----|----|---|---|
| 46.    | C   | 10 and 12 or -10 and -12  | ✓       | <p>Let the first even number be <math>2x</math>.</p> $2x(2x + 2) = 120$ $4x^2 + 4x - 120 = 0$ $4(x^2 + x - 30) = 0$ $4(x + 6)(x - 5) = 0$ $x = -6 \text{ or } x = 5$ <p>Even numbers: 10 and 12 or -12 and -10</p>   |       |    |   |   |   |        |     |    |   |   |
| 47.    | B   | -4  | ✓       | <table border="1"> <tr> <td>Input</td><td>-1</td><td>2</td><td>5</td><td>8</td></tr> <tr> <td>Output</td><td><math>b</math></td><td>-1</td><td>2</td><td>5</td></tr> </table> <p>Output = Input - 3<br/> <math>b = -1 - 3</math><br/> <math>b = -4</math></p>                                  | Input | -1 | 2 | 5 | 8 | Output | $b$ | -1 | 2 | 5 |
| Input  | -1  | 2   | 5       | 8  |       |    |   |   |   |        |     |    |   |   |
| Output | $b$ | -1  | 2       | 5  |       |    |   |   |   |        |     |    |   |   |
| 48.    | C   | 7   | ✓       | $y = -2x - 3$ $= -2(-5) - 3$ $= 10 - 3$ $= 7$  |       |    |   |   |   |        |     |    |   |   |
| 49.    | D   | Multiply by -3  | ✓       | $-2(-3) = 6$ $-1(-3) = 3$ $2(-3) = 6$ $\therefore \text{multiply by } -3$  |       |    |   |   |   |        |     |    |   |   |
| 50.    | C   |  | ✓       | The table clearly indicates the $x$ -intercept, $(-2; 0)$ and the $y$ -intercept, $(0; 1)$ .   |       |    |   |   |   |        |     |    |   |   |
| 51.    | D   | $-\frac{3}{22}$   | ✓       | $-\frac{2a}{3} + 1 = -8a$ $-2a + 3 = -24a$ $-2a + 24a = -3$ $22a = -3$ $a = \frac{-3}{22}$   |       |    |   |   |   |        |     |    |   |   |
| 52.    | B   | $y = -2x + 4$   | ✓       | <p><math>A(3; -2) \rightarrow A'(2; 0)</math><br/> Join the points.<br/> <math>y</math>-intercept = 4<br/> Gradient = <math>\frac{\text{vertical change}}{\text{horizontal change}}</math><br/> <math display="block">= \frac{-2 - 0}{3 - 2}</math><br/> <math display="block">= -2</math></p> |       |    |   |   |   |        |     |    |   |   |



| No. |   | Expected answer   | Key (✓) | Rational/Clarification   |
|-----|---|-------------------|---------|--|
|     |   |                   |         | The equation is $y = -2x + 4$ .  |
| 53. | C | (0; 3)            | ✓       | $y = -2x + 3$<br>If $x = 0$ then $y = 3$ .   |
| 54. | B | $y = 3$           | ✓       | Gradient of a horizontal line equal to zero.<br>$y$ -intercept of $f$ is 3, therefore $y = 3$ .  |
| 55. | D | $\frac{-3}{2}$    | ✓       | The gradient of a line is equal to the coefficient of $x$ in $y = mx + c$ .  |
| 56. | A | $y = -x - 2$      | ✓       | $m = \frac{y_1 - y_2}{x_1 - x_2}$ $= \frac{-3 - (-2)}{1 - 0}$ $= \frac{-1}{1}$ $= -1$ $y\text{-intercept: } (0; -2)$ $c = -2$ Substitute in $y = mx + c$<br>$y = -x - 2$ |
| 57. | D | (2; 0) and (0; 4) | ✓       | $x\text{-intercept: } y = 0$ $4x + 2(0) = 8$ $x = 2$<br>(2; 0)<br>$y\text{-intercept: } x = 0$ $4(0) + 2y = 8$ $y = 4$<br>(0; 4)   |
| 58. | C | $c < 0; m > 0$    | ✓       | The $y$ -intercept is negative and the gradient is positive.   |
| 59. | D | $-\frac{2}{3}$    | ✓       | Use any two of $(-2; 3)$ ; $(4; -1)$ or $(1; 1)$ .<br>$m = \frac{y_2 - y_1}{x_2 - x_1}$ $= \frac{-1 - 3}{4 + 2}$ $= -\frac{4}{6}$ $= -\frac{2}{3}$                       |

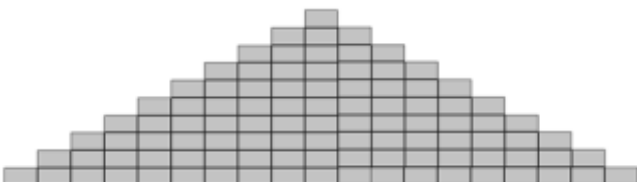
| No.             | Expected answer   | Key<br>(✓) | Rational/Clarification   |
|-----------------|---|------------|--|
| 60. C           |  | ✓          | $2y - 6x - 4 = 0$<br>$y = 3x + 2$ Standard form<br>$\therefore$ gradient = 3 and y-intercept = 2 |
| SECTION A TOTAL |   |            | [60]   |

## SECTION B

| Marking guideline for Section B   |            |                                 |
|---|------------|---------------------------------|
| <ul style="list-style-type: none"> <li>Do not penalise the learner for the same mistake more than once.</li> <li><i>There are no half marks.</i></li> <li>Underline errors committed by learners do not place a cross (X).</li> <li>In instances where learners have used different but mathematically sound strategies to solve problems, they (learners) must be credited.</li> <li>Consistent accuracy must be applied.</li> </ul> |            |                                 |
| <b>M</b>  | <b>key</b> | a mark for a correct method     |
| <b>A</b>  |            | a mark for accurate calculation |
| <b>CA</b>   |            | a mark for consistent accuracy  |

| No. | Expected answer   | Rational/Clarification   | Mark |
|-----|---|--|------|
| 61. | $\frac{-5x(2x - 4x^2) + x^2(1 + 16x)}{-3x}$ $= \frac{-10x^2 + 20x^3 + x^2 + 16x^3}{-3x} \checkmark \mathbf{M}$ $= \frac{-9x^2 + 36x^3}{-3x} \checkmark \mathbf{CA}$ $= 3x - 12x^2 \checkmark \mathbf{CA}$ <p><b>OR</b></p> $\frac{-5x(2x - 4x^2) + x^2(1 + 16x)}{-3x}$ $= \frac{-5x(2x - 4x^2)}{-3x} + \frac{x^2(1 + 16x)}{-3x}$ $= \frac{-10x^2 + 20x^3}{-3x} + \frac{-3x}{-3x} \checkmark \mathbf{M}$ $= \frac{10}{3}x - \frac{20}{3}x^2 - \frac{1}{3}x - \frac{16}{3}x^2 \checkmark \mathbf{CA}$ $= 3x - 12x^2 \checkmark \mathbf{CA}$ | <p>Simplification: 1 mark<br/> <math>-9x^2 + 36x^3</math>: 1 mark</p> <p>Answer: 1 mark</p> <p><b>OR</b></p> <p>Simplification: 1 mark<br/> <math>\frac{10}{3}x - \frac{20}{3}x^2 - \frac{1}{3}x - \frac{16}{3}x^2</math>:<br/> 1 mark</p> <p>Answer: 1 mark</p> | (3)  |
| 62. | $2x^2 - 6x = (x - 3)(x + 3)$ $2x^2 - 6x = x^2 - 9 \checkmark \mathbf{M}$ $x^2 - 6x + 9 = 0 \checkmark \mathbf{CA}$ $(x - 3)^2 = 0$ $x = 3 \checkmark \mathbf{CA}$   | <p><math>x^2 - 9</math>: 1 mark</p> <p>Standard form: 1 mark</p> <p>Answer: 1 mark</p>   | (3)  |

| No. | Expected answer  | Rational/Clarification   | Mark |
|-----|--|--|------|
| 63. | <p>Used <math>(-1; 2)</math> and <math>(5; -1)</math>.</p> <p>Any 2 applicable points may be used. ✓M</p> $\text{Gradient} = \frac{2 - (-1)}{-1 - 5}$ $= \frac{2 + 1}{-1 - 5}$ $= \frac{3}{-6}$ $= -\frac{1}{2} \text{ ✓CA}$ $y = -\frac{1}{2}x + c$ <p>y-intercept: Substitute any applicable point.</p> $0 = -\frac{1}{2}(3) + c \text{ ✓M}$ $c = 0 + \frac{3}{2}$ $= \frac{3}{2} \text{ or } 1\frac{1}{2} \text{ ✓CA}$ $y = -\frac{1}{2}x + 1\frac{1}{2} \text{ ✓CA}$ | <p>Identification of 2 points:<br/>1 Mark</p> <p>Gradient calculation:<br/>1 Mark</p> <p><b>OR</b><br/><b>2 marks for the correct gradient</b></p> <p>Substitution of gradient and point:<br/>1 Mark</p> <p>Calculation of y-intercept:<br/>: 1 Mark</p> <p>Equation: 1 Mark</p> | (5)  |

|  |  |                         |                                |   |     |
|--|--|-------------------------|--------------------------------|---|-----|
| 64.  | <b>Number of layers in stack</b>                   | <b>Blocks per layer</b> | <b>Total number of blocks.</b> | Correct number of blocks for 3 stacks: 1 mark<br><br>Correct number of blocks for next 3 stacks: 1 mark<br><br>Correct number of blocks for next 3 stacks: 1 mark<br><br>Answer: 1 mark | (4) |
|  | 1  | 1                       | 1                              |   |     |
|  | 2  | $1 + 2 = 3$             | 4                              |   |     |
|  | 3  | $3 + 2 = 5$             | 9                              |   |     |
|  | 4  | $5 + 2 = 7$             | 16                             |   |     |
|  | 5  | $7 + 2 = 9$             | 25                             |   |     |
|  | 6  | $9 + 2 = 11$            | 36                             |   |     |
|  | 7  | $11 + 2 = 13$           | 49                             |   |     |
|  | 8  | $13 + 2 = 15$           | 64                             |   |     |
|  | 9  | $15 + 2 = 17$           | 81                             |   |     |
|  | 10   | $17 + 2 = 19$           | 100                            |   |     |
| OR   |  |                         |                                |   |     |
|    |  |                         |                                |   |     |
| OR   |  |                         |                                |   |     |
| <b>Number of layers in stack</b>   | <b>Total number of blocks used.</b>                |                         |                                |   |     |
| 1  | 1  |                         |                                |   |     |
| 2  | $1 + 3 = 4$  |                         |                                |   |     |
| 3  | $1 + 3 + 5 = 9$                                    |                         |                                |   |     |
| 4  | $1 + 3 + 5 + 7 = 16$                               |                         |                                |   |     |
| 5  | $1 + 3 + 5 + 7 + 9 = 25$                           |                         |                                |   |     |
| 6  | $1 + 3 + 5 + 7 + 9 + 11 = 36$                      |                         |                                |   |     |
| 7  | $1 + 3 + 5 + 7 + 9 + 11 + 13 = 49$                 |                         |                                |   |     |
| 8  | $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 = 64$            |                         |                                |   |     |
| 9  | $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 = 81$       |                         |                                |   |     |
| 10   | $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 = 100$ |                         |                                |   |     |
| Number of blocks is equal to number of layers multiplied by itself. ✓M<br>Number of blocks = $y$ . Number of layers = $x$<br>$y = x \times x$ ✓M<br>$y = 10 \times 10$ ✓M<br>$y = 100$ ✓CA |  |                         |                                |   |     |
| Maths sentence: 1 mark<br>Formula: 1 mark<br>Substitution: 1 mark<br>Answer: 1 mark<br>Full marks for correct answer only.   |  |                         |                                |   |     |

| No. | Expected answer | Rational/Clarification | Mark                   |
|-----|-----------------|------------------------|------------------------|
|     |                 |                        | <b>SECTION B TOTAL</b> |
|     |                 |                        | <b>[15]</b>            |
|     |                 |                        | <b>TOTAL</b>           |
|     |                 |                        | <b>[75]</b>            |