

| Question |     | Answer                       | Marks | Part Marks and Guidance  |
|----------|-----|------------------------------|-------|--|
| 1        |     | $9x - 22$ final answer       | 3     | <b>B1</b> for $6x - 10$ seen<br><b>And B1</b> for $[+]3x - 12$ seen  |
| 2        |     | $55\sqrt{2}$                 | 4     | Or <b>B1</b> for $5\sqrt{2}$ or $40\sqrt{2}$<br>And <b>M1A1</b> for $\frac{30\sqrt{2}}{\sqrt{2}\sqrt{2}} = 15\sqrt{2}$ |
| 3        | (a) | $3x + 4y - 5$ final answer   | 3     | <b>B2</b> for <u>two</u> of $3x$ , $(+)$ $4y$ , $- 5$<br><b>Or B1</b> for <u>one</u> of $3x$ , $(+)$ $4y$ , $- 5$      |
|          | (b) | $\frac{3x}{2y}$ final answer | 2     | <b>B1</b> for $\frac{3xy}{2y^2}$ or $\frac{15x}{10y}$ or $\frac{1.5x}{y}$ seen   |
|          | (c) | $2x(2x + 5y)$ final answer   | 2     | <b>B1</b> for $2(2x^2 + 5xy)$ or $x(4x + 10y)$ seen<br><b>Or SC1</b> for $4x(x + 2.5y)$<br>or $(2x + 0)(2x + 5y)$ seen |

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| 4 | (a) |  | $7x + 26$ final answer       | 3 | <b>B1</b> for $10x + 14$<br><b>And B1</b> for $-3x + 12$  |                                  |
|   | (b) |  | $6x^2 - 5x - 4$ final answer | 3 | <b>B2</b> for <u>three</u> of $6x^2$ , $(+)$ $3x$ , $-8x$ , $-4$<br><b>Or B1</b> for <u>two</u> of $6x^2$ , $(+)$ $3x$ , $-8x$ , $-4$ | $-5x$ implies $(+)$ $3x$ , $-8x$ |

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| 5 |  |  | <u>Three</u> of $3 \times 4$ ; $3 \times \sqrt{7}$ ; $4 \times \sqrt{7}$ ; $\sqrt{7} \times \sqrt{7}$ oe<br>$19 + 7\sqrt{7}$ final answer | <b>M1</b><br><b>B1</b> |  |  |
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| 6 | (a) |  | $5a + 14$ as final answer   | 3 | nfw<br><b>B2</b> for $5a \pm$ other number<br>or for other $a$ term $+ 14$<br><br>Or <b>B1</b> for other answer involving $5a$ and/or<br>$14$<br><br>Or <b>M1</b> for $8a + 20$ or for $\pm 3a \pm 6$ | eg <b>B1</b> for $5a = 14$ |
|   | (b) |  | $4y(3 + y)$ as final answer | 2 | <b>B1</b> for $4y(\dots)$ or $\dots(3 + y)$ or $4(3y + y^2)$ or<br>$y(12 + 4y)$ or $2y(6 + 2y)$<br><br>Or <b>B1</b> for $4y(3 + y)$ seen then spoilt  |                            |

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| 7 | (a) | $7x$ final answer               | 2 | <b>B1</b> for $\frac{7x}{1}$ or for $\frac{14x}{2}$ or $\frac{7x^2}{x}$ seen  |  |
|   | (b) | $27y^2 - 18y + 20$ final answer | 4 | <b>B2</b> for $15y^2 - 10y$<br>Or <b>B1</b> for $15y^2$ or $-10y$<br>AND<br><b>B1</b> for $12y^2 - 8y + 20$   |  |
|   | (c) | $5(2x - 3)$ final answer        | 1 |   | Condone omission of right-hand bracket |
|   | (d) | $\pm 4$                         | 3 | <b>B2</b> for answer (+)4 or answer -4<br>or for $(\pm)\sqrt{16}$ seen<br>or for $(x - 4)(x + 4) [=0]$<br>Or <b>M1</b> for $x^2 = 16$<br>Or for $x^2 - 16 [=0]$ |  |

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| 8 |  | <p><math>6x + 2y + 30</math> and <math>2x + 6y + 10</math> <b>both</b> correctly found with diagrams and clear working</p> <p><math>6x + 2y + 30</math> and <math>2x + 6y + 10</math> <b>both</b> correctly found with correct diagrams but with less clear or no working</p> <p><b>Both</b> correct arrangements considered with diagrams but with little or wrong or no working<br/>or <b>one</b> correct arrangement considered with diagram and correct formula but with little or wrong or no working<br/>or <b>both</b> correct formulae with no diagrams and little or wrong or no working</p> <p>No relevant comment</p> | 5<br><br>4-3<br><br>2-1<br><br>0 | <p>Ignore all arrangements other than the correct two</p> <p><b>One</b> correct arrangement considered with diagram and clear working and correct formula found<br/>or <b>both</b> correct arrangements considered with diagrams and one correct formula but with little or wrong or no working<br/>or <b>both</b> correct formulae with no diagrams but with clear working</p> <p><b>One</b> correct arrangement considered with diagram but with little or wrong or no working<br/>or <b>one</b> correct formula with no diagram and little or wrong or no working</p> |
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| 9 | (a) |  | $\frac{2y}{3}$ | 2 | <b>B1</b> for $\frac{4y}{6}$ or $\frac{2xy}{3x}$ or 0.66[6...]y seen                                       |  |
|   | (b) |  | $18x - 11$     | 3 | <b>B1</b> for $6x - 3$<br><b>And B1</b> for $12x - 8$<br>After <b>B0</b><br><b>SC1</b> for $18x$ in answer |  |

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| 10 | (a) |  | $8x^2$ final answer     | 2 | <b>B1</b> for $\frac{8x^3}{[1]x}$ or $\frac{40x^2}{5}$ or $\frac{8x^2}{1}$   |                               |
|    | (b) |  | $11x - 23$ final answer | 3 | <b>B1</b> for $3x - 3$<br><b>B1</b> for $8x - 20$<br>After <b>0</b> allow <b>SC1</b> for $11x \pm n$ any $n \neq 0$<br>or for $ax - 23$ any $a \neq 0$ | $11x + - 23$ scores <b>B2</b> |

|           |            |  |                                  |   |  |                           |
|-----------|------------|--|----------------------------------|---|--|---------------------------|
| <b>11</b> | <b>(a)</b> |  | $x^3 - 3x^2 + [1]x$ final answer | 3 | <b>B2</b> for two of $x^3, -3x^2, +[1]x$ seen<br>Or <b>B1</b> for one of $x^3, -3x^2, +[1]x$ seen  |                           |
|           | <b>(b)</b> |  | $2x - 9$ final answer            | 3 | <b>B1</b> for $12x + 3$ seen<br><b>B1</b> for $-10x - 12$ seen<br><br>If <b>B0</b> scored, then <b>SC1</b> for answer $2x \pm k, k \neq 0$ | Condone $-10x + -12$ seen |
|           | <b>(c)</b> |  | $x^2 - 8x - 20$ final answer     | 2 | <b>B1</b> for three of $x^2, -10x, [+ ] 2x, -20$ seen  |                           |