# Algebra: Quadratics, Rearranging Formulae and Identities Exam Questions

| Q | Answer | Mark | Comments |
|---|--------|------|----------|
| **1(a)** | $2x + 4 + 4x - 3 + 2x + 4 + 4x - 3$ | M1 | oe |
| | $12x + 2$ | A1 | Allow $P = \cdots$ |
| **1(b)** | Chooses both of $(2x + 4)(4x - 3)$ and $8x^2 + 10x - 12$ and no incorrect statements. | B2 | B1 Chooses one of $(2x + 4)(4x - 3)$ or $8x^2 + 10x - 12$  OR  Chooses both of $(2x + 4)(4x - 3)$ and $8x^2 + 10x - 12$ and one incorrect statement. |

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| **2(a)** | $(x + 9)(x - 2)$ | M1 | Factorises |
| | $x + 9 + x - 2 + x + 9 + x - 2$ | M1 | |
| | $4x + 14$ | A1 | |
| **2(b)** | $(11 + 9) \times (11 - 2)$ OR $11^2 + 7 \times 11 - 18$ | M1 | Substitutes into either original quadratic or factorised form |
| | $180$ | A1 | |

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| **3(a)** | $4x - ax = 8y - 12$ OR $ax - 4x = 12 - 8y$ | M1 | Isolates $x$ terms |
| | $x(4 - a) = 8y - 12$ OR $x(a - 4) = 12 - 8y$ | M1 | Factorises $x$ terms |
| | $x = \dfrac{8y - 12}{4 - a}$ OR $x = \dfrac{12 - 8y}{a - 4}$ | A1 | |
| **3(b)** | $x = \dfrac{8 \times 10 - 12}{4 - 2}$ | M1 | Substitutes into either original or rearranged form o.e. |
| | $34$ | A1 | cao |