JP Maths Revision

Expanding Quadratics

Exam Style Questions

1. Expand and simplify $(x + 1)(x + 2)$

…….. (2 marks)

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2. Expand and simplify $(2x + 3)(x + 4)$

…….. (2 marks)

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3. Expand and simplify $(x - 7)(2x + 1)$

…….. (2 marks)

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4. Expand and simplify $(2x - 1)(3x - 2)$

…….. (2 marks)

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5. Expand and simplify $(x - 3)(x + 3)$

…….. (2 marks)

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6. Expand and simplify $(2x + 1)(2x - 1)$

…….. (2 marks)

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7. Expand and simplify $7(x - 5)(x - 1)$

…….. (2 marks)

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8. Expand and simplify $(4x + 1)^2$

…….. (2 marks)

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9. Expand and simplify $(x + 1)(x - 2) + (x + 7)(x - 3)$

…….. (3 marks)

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10. Expand and simplify $(x - 1)(2x + 3) - (4x - 1)(x - 3)$

…….. (3 marks)

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11. Expand and simplify $x - (6x + 1)(x + 3)$

…….. (3 marks)

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12. Expand and simplify $3x^2 - 4x - (x + 2)(4x + 1)$

…….. (3 marks)

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13. A triangle has a base $(x + 3)\ cm$ and height $(9x + 2)\ cm$. Show that the area, A, can be written in the form $A = ax^2 + bx + c$ where a, b and c are values to be determined.

…….. (3 marks)

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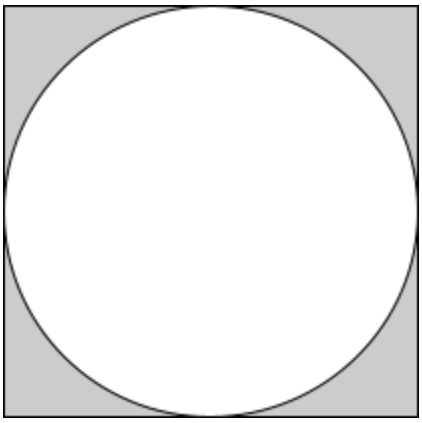
14. Below is a circle enclosed within a square. The circle has a radius $(2x - 3)\ cm$ and the square has length $(x + 2)\ cm$. Show that the area of the shaded region can be written in the form $Ax^2 + Bx + C$, where A, B and C are expressions in terms of $\boldsymbol{\pi}$.



…….. (5 marks)