

- 1 Show that $(x + 1)(x + 2)(x + 3)$ can be written in the form $ax^3 + bx^2 + cx + d$ where a , b , c and d are positive integers.

(3)

- 2 Solve $(x - 2)^2 = 3$

Give your solutions correct to 3 significant figures.

(2)

3 (a) Factorise $a^2 - b^2$

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(1)

(b) Hence, or otherwise, simplify fully $(x^2 + 4)^2 - (x^2 - 2)^2$

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(3)

4 Expand and simplify $5(p + 3) - 2(1 - 2p)$

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(2)

5 (a) Expand and simplify $(x + 5)(x - 9)$

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(2)

(b) Factorise fully $9x^2 + 6x$

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(2)