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Past paper, may 2008.

5) Express $x^2 + 6x - 4$ in the form of $(x+a)^2 + b$.

$$(x+3) - 4 - 3^2$$

$$(x+3)^2 - 13$$

Find the least value of $2x^2 + 12x - 8$ and the corresponding value of x .

$$2x^2 + 12x - 8$$

$$2(x^2 + 6x - 4)$$

$$2((x+3)^2 - 4 - 3^2)$$

$$2((x+3)^2 - 13)$$

$$2(x+3)^2 - 26$$

The least value is -26

The least value of x is -3 .

Very nice

4 marks
out of 4