

Qualification: SQA National 5 Mathematics 2018

Paper: 1 (Non-calculator)

Question: 19

19. (a) (i) Express $x^2 - 6x - 81$ in the form $(x - p)^2 + q$. 2

(ii) Hence state the equation of the axis of symmetry of the graph of

$y = x^2 - 6x - 81$. 1

(b) The roots of the equation $x^2 - 6x - 81 = 0$ can be expressed in the form $x = d \pm d\sqrt{e}$.

Find, algebraically, the values of d and e .

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