9 **(i)** Express $9x^2 - 6x + 6$ in the form $(ax + b)^2 + c$, where a, b and c are constants. [3]

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The function f is defined by $f(x) = 9x^2 - 6x + 6$ for $x \geqslant p$, where p is a constant.

(ii) State the smallest value of p for which f is a one-one function. [1]

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(iii) For this value of p, obtain an expression for $\mathrm{f}^{-1}(x)$, and state the domain of f^{-1}. [4]

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(iv) State the set of values of q for which the equation $\mathrm{f}(x) = q$ has no solution. [1]

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