1 **(a)** Solve the inequality $3x^2 - 12x + 16 > 3x + 4$. [3]

(b) **(i)** Write $3x^2 - 12x + 16$ in the form $a(x + b)^2 + c$ where a, b and c are integers. [3]

(ii) Hence, write down the equation of the tangent to the curve $y = 3x^2 - 12x + 16$ at the minimum point of the curve. [1]

2 A curve has equation $y = 32x^2 + \frac{1}{8x^2}$ where $x \neq 0$.

(a) Find the coordinates of the stationary points of the curve. [5]

(b) These stationary points have the same nature. Use the second derivative test to determine whether they are maximum points or minimum points. [3]

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