

Problem 0580/41/O/N/20/ Q10A(II&III)

(ii) Differentiate $x^2 + 3x - 4$.

$$2x + 3$$

(iii) Find the equation of the tangent to the curve at the point (2, 6).

$$\frac{dy}{dx} = 2x + 3$$

$$x = 2 \quad \frac{dy}{dx} = 2 \times 2 + 3 = 7$$

Eq. of tangent

$$y = 7x + C$$

$$6 = 7 \times 2 + C$$

$$C = 6 - 14 = -8$$

$$y = 7x - 8$$