

17 (i) Express $\frac{(x^2 - 8x + 9)}{(x + 1)(x - 2)^2}$ in partial fractions. [5]

(ii) Express y in terms of x given that

$$\frac{dy}{dx} = \frac{y(x^2 - 8x + 9)}{(x + 1)(x - 2)^2} \text{ and } y = 16 \text{ when } x = 3. \quad [7]$$