

(c) Kecerunan lengkung $y = px^2 + qx + 1$ pada $(2, 5)$ ialah 8.
The gradient for the curve $y = px^2 + qx + 1$ at $(2, 5)$ is 8.

$$\begin{aligned} \textcircled{1} \quad y &= px^2 + qx + 1 \\ \square &= p(\square)^2 + q(\square) + 1 \\ \square &= \square + \square + 1 \quad \text{---}\textcircled{1} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad y &= px^2 + qx + 1 \\ y' &= \square px + \square \\ 8 &= 2p(2) + q \\ \square &= \square + q \quad \text{---}\textcircled{2} \end{aligned}$$

① Ganti $(2, 5)$ dlm persamaan

② cari fungsi kecerunan, ganti $\frac{dy}{dx} = 8$

③ selesaikan persamaan serentak.

$$\begin{aligned} \textcircled{3} \quad \square &= \square + \square + 1 \quad \text{---}\textcircled{1} \\ \square &= \square + q \quad \text{---}\textcircled{2} \end{aligned}$$

$$\textcircled{1} - \textcircled{2} : -3 = \square + 1$$

$$q = \square$$

Ganti $q = \square$ dlm $\textcircled{2}$

$$8 = 4p + (\square)$$

$$4p = \square$$

$$p = \square$$