

Penyelesaian :

$$1) \frac{dy}{dx} \quad 5a^2y^2 - 8a^3 + 6y^6 - 4 = 0$$

$$\Rightarrow 10ay^2 + 5a^2y \cdot y' - 24a^2 + 36y^5y' - 0 = 0$$

$$10ay^2 + (10a^2y + 36y^5)y' - 24a^2 = 0$$

$$(10a^2y + 36y^5)y' = 24a^2 - 10ay^2$$

$$y' = \frac{24a^2 - 10ay^2}{10a^2y + 36y^5} //$$

$$2) \frac{dy}{dx} \quad \cos(ay) = 5a^2 + 6y^6$$

$$\Rightarrow \cos(ay) = 5a^2 + 6y^6$$

$$-\sin(ay)(y + ay') = 10a \cdot a' + 36y^5y'$$

$$-y \sin(ay) - ay' \sin(ay) = 10a \cdot a' + 36y^5y'$$

$$-y'36y^5 - ay' \sin(ay) = 10a \cdot a' + y \sin(ay)$$

$$-y'(36y^5 + a \sin(ay)) = 10a \cdot a' + y \sin(ay)$$

$$y' = \frac{10a \cdot a' + y \sin(ay)}{36y^5 + a \sin(ay)} //$$