Tugas 2

Saturday, 11 September 2021 16.24

1. $y = \dfrac{4x^4 - 10x^3 - 4x^2}{2x^2}$

$0 = 4x^4 - 10x^3 - 4x^2$

$= 2x^2 - 5x - 2$

$= (2 \quad 1)(1 - \quad 2)$

$=$

tidak bisa ketemu jawabannya

2. Cari dy/dx

$2x^3 + 4y^3 - 8xy = 0$

$2x^3 \dfrac{d}{dx} + 4y^3 \dfrac{d}{dy} \dfrac{dy}{dx} - \left(8x\,y \dfrac{d}{dx} + 8xy \dfrac{d}{dy} \dfrac{dy}{dx}\right) = 0$

$6x^2 + 12y^2 \dfrac{dy}{dx} - \left(8y + 8x \dfrac{dy}{dx}\right) = 0$

$6x^2 + 12y^2 \dfrac{dy}{dx} - dy - 8x \dfrac{dy}{dx} = 0$

$6x^2 - 8y = (8x - 12y^2) \dfrac{dy}{dx}$

$\dfrac{6x^2 - 8y}{8x - 12y^2} = \dfrac{dy}{dx}$

$2x^2 - 4y \quad - dy$

$$\frac{3x^2 - 4y}{4x - 6y^2} = \frac{dy}{dx}$$

3. biaya proyek per hari $2x - 120 + \frac{50}{x}$
agar minimum :

$$f(x) = 2x - 120 + \frac{50}{x}$$

$$f(x) = 2x^2 - 120x + 50$$

$$f'(x) = 4x - 120 = 0$$

$$4x = 120$$

$$x = 30 \text{ hari}$$