

Primera clase.

$$F(x) = -x^2 \rightarrow y = F(x)$$

$$① F' \text{ y } F''$$

$$-F'(x) = -2x \rightarrow ? \quad C = 0$$

$$-F''(x) = -2$$

$$② F'(x) = 0 \rightarrow C = (x, y) \rightarrow C = (0, 0) \rightarrow \text{Máx} //$$

$$-2x = 0$$

$$x = \frac{0}{-2}$$

$$x = 0$$

$$F(0) = -(0)^2$$

$$F(0) = 0$$

$$y = 0$$

$$= 0$$

$$③ F''(x) = 0 \rightarrow P. I = 0$$

$$F''(x) = -2$$

$$F''(0) = \boxed{-2}$$

$$F''(x) > 0 \rightarrow P. \text{min} = +$$

$$F''(x) < 0 \rightarrow P. \text{max} = -$$

Segunda clase..

$$F(x) = 2x^3 - 4x^2$$

$$① F(x) = 6x^2 - 8x$$

$$F'(x) = 12x - 8$$

$$② F'(x) = 0 \rightarrow ? = C \rightarrow C = \left(\frac{4}{3}, \frac{-64}{27}\right)$$

$$6x^2 - 8x = 0$$

$$F\left(\frac{4}{3}\right) = 2\left(\frac{4}{3}\right)^3 - 4\left(\frac{4}{3}\right)^2$$

$$x(6x - 8) = 0 \rightarrow x = 0$$

$$F\left(\frac{4}{3}\right) = 2 \cdot \frac{64}{27} - 4 \cdot \frac{16}{9}$$

$$6x - 8 = 0$$

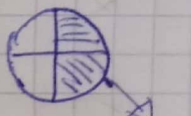
$$F\left(\frac{4}{3}\right) = \frac{128}{27} - \frac{64}{9} = \frac{-64}{27} = y$$

$$6x = 8$$

$$x = \frac{8}{6} = \frac{4}{3}$$

$$\frac{128}{24} - \frac{64}{9}$$

$$1 = \frac{4}{4}$$



$$1 = \frac{8}{8}$$

$$1 = \frac{2}{2}$$

$$\frac{128}{24} - \frac{64}{9} \cdot \frac{2}{3}$$

$$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$$



$$\frac{1}{8} + \frac{1}{4} \Rightarrow \frac{1}{8} + \frac{2}{4} = \frac{1}{8} + \frac{4}{8} = \frac{5}{8}$$

$$\frac{128}{24} - \frac{192}{24} = -\frac{64}{24}$$

$$\frac{1}{4} = \frac{2}{8}$$

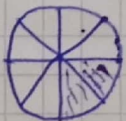
$$F''(2) = 12x - 8$$

$$F''\left(\frac{4}{3}\right) = 12\left(\frac{4}{3}\right) - 8$$

$$F''\left(\frac{4}{3}\right) = \frac{48}{3} - \frac{8}{1} = 16 - 8$$

$$F''\left(\frac{4}{3}\right) = 16 - 8 = 8 \text{ m}^2/\text{s}$$

$$\frac{1}{4}$$



$$\frac{1}{4} \cdot \frac{2}{2}$$

$$\frac{8}{8}$$



$$\frac{2}{8}$$

$$C = (8, 0) - \text{m}^2/\text{s}$$

$$F(0) = 2(0)^3 - 4(0)^2$$

$$F(0) = 0$$

$$F''(0) = 12(0) - 8$$

$$F''(0) = \boxed{-8} \text{ m}^2/\text{s}$$