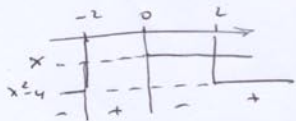


$$\textcircled{1} \quad f(x) = x^3 - 4x$$

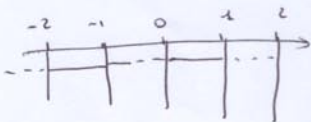
$$g(x) = \sin \pi x$$

SEGN

$f(x)$



$g(x)$



INT. ASSI

$$f(0) = 0$$

$$f(x) = 0 \text{ per } \begin{cases} x = 0 \\ x = \pm 2 \end{cases}$$

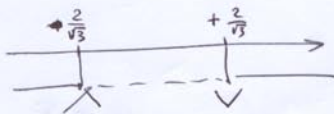
$$g(0) = 0$$

$$g(x) = 0 \text{ per } \{x = k \in \mathbb{Z}\}$$

DERIVATE

$$f'(x) = 3x^2 - 4$$

$$\rightarrow f'(x) = 0 \text{ per } x = \pm \frac{2}{\sqrt{3}} \quad y = \mp \frac{16}{3\sqrt{3}}$$



$$g'(x) = \pi \cos \pi x$$

$$\rightarrow g'(x) = 0 \text{ per } x = \frac{1}{2} + k \quad k \in \mathbb{Z}$$

$$y = (-1)^k$$

ASINTOMI

$$\text{no: } \begin{cases} \text{Esse } f(x) = \pm \infty \\ x \rightarrow \pm \infty \end{cases}$$

$$\begin{cases} \text{Esse } g(x) \text{ n.e.} \\ x \rightarrow \pm \infty \end{cases}$$

Studenti^{it}

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