

Ex 2: Solve $(x^4 - 1)(2 - 5x) < 0$

strict!

$$\text{let } f(x) = (x^4 - 1)(2 - 5x)$$

$$f(x) = (x^2 - 1)(x^2 + 1)(2 - 5x)$$

$$f(x) = (x - 1)(x + 1)(x^2 + 1)(2 - 5x)$$

$$\text{set } f(x) = 0, \quad (x - 1)(x + 1)(x^2 + 1)(2 - 5x) = 0$$

$$x - 1 = 0 \text{ or } x + 1 = 0 \text{ or } x^2 + 1 = 0, \quad 2 - 5x = 0$$

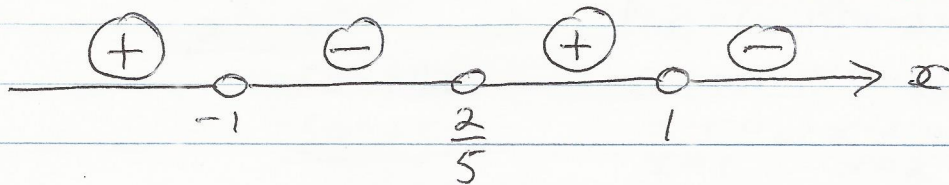
$$x = 1$$

$$x = -1$$

$$x = \pm i$$

$$x = \frac{2}{5}$$

no real solutions.



$$x \in (-1, \frac{2}{5}) \cup (1, +\infty)$$

$$-1 < x < \frac{2}{5} \text{ or } x > 1$$