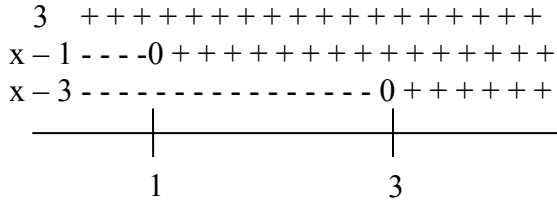


$$f(x) = x^3 - 6x^2 + 9x - 3$$

$$f'(x) = 3x^2 - 12x + 9 = 3(x^2 - 4x + 3) = 3(x - 1)(x - 3)$$

So we have critical points at $x = 1, 3$



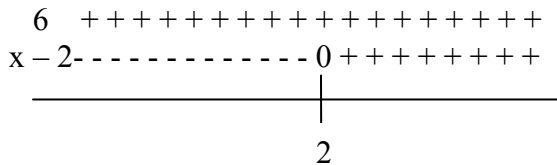
f is increasing on $(-\infty, 1)$ and $(3, +\infty)$

f is decreasing on $(1, 3)$

f has a relative maximum of 1 at $x = 1$

f has a relative minimum of -3 at $x = 3$

$$f''(x) = 6x - 12 = 6(x - 2)$$



f is concave down on $(-\infty, 2)$

f is concave up on $(2, +\infty)$

f has an inflection point of $(2, -1)$

