6. $f(x) = x + \frac{4}{x^1}$

$= x + 4x^{-1}$

① $f'(x) = 1 - 4x^{-2}$

$= 1 - \frac{4}{x^2}$

$= \frac{1}{1} - \frac{4}{x^2}$

$= \frac{x^2}{x^2} - \frac{4}{x^2}$

$f'(x) = \frac{x^2-4}{x^2}$

② $x^2 - 4 = 0$

$x^2 = 4$

$x = \pm\sqrt{4}$

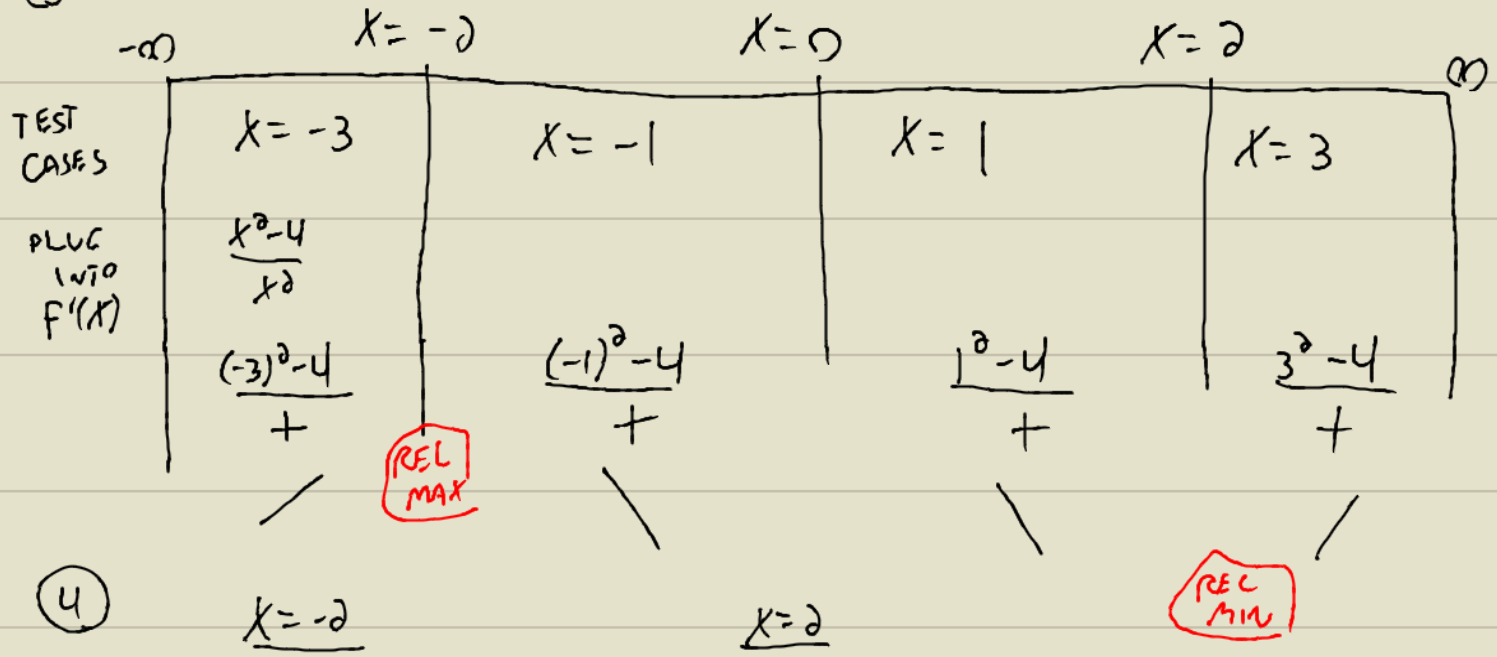
$x = \pm\sqrt{2 \cdot 2}$

$x = \pm 2$

$x^2 = 0$

$x = 0$

③



④

$x = -2$

$y = x + \frac{4}{x}$

$y = -2 + \frac{4}{-2}$

$y = -2 - 2$

$y = -4$

REL MAX $(-2, -4)$

$x = 2$

$y = x + \frac{4}{x}$

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

$y = 2 + 2$

$y = 4$

REL MIN $(2, 4)$