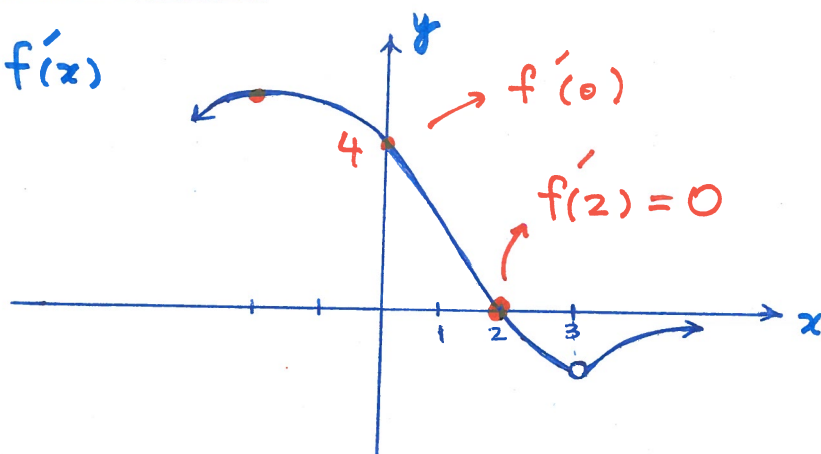


Quick Review Test. The following graph is the graph of the derivative f'

$$y = f'(x)$$



a) List the critical numbers of f .

$$f' = 0 \text{ or } f' \text{ NOT defined}$$

$$x = 2 \text{ because } f'(2) = 0$$

$$x = 3 \text{ because } f'(3) \text{ is NOT defined.}$$

b) At which intervals f is increasing and decreasing.

(Assume f is defined at $x = 3$) $f' \oplus$ $f' \ominus$

$f' > 0$ when it's above x -axis : in $(-\infty, 2]$ f is increasing

$f' < 0$ when it's below x -axis : in $[2, +\infty)$ f is decreasing.