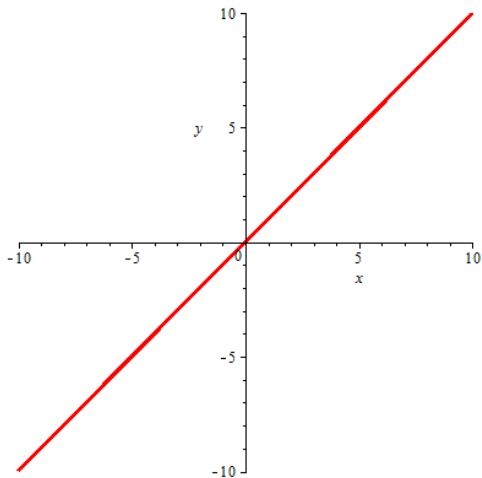


SIGN OF THE DERIVATIVE EXERCISES – ANSWERS

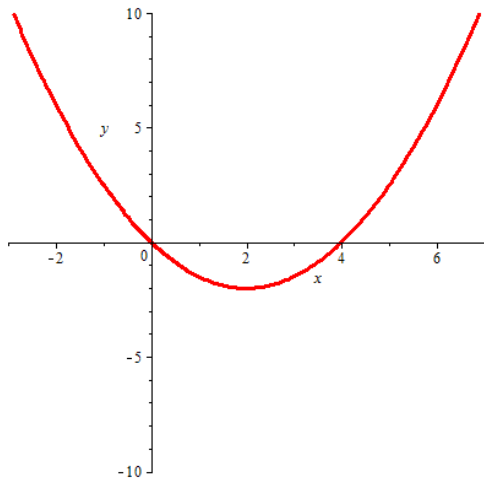
1. Use the graph of $y = f(x)$ below to find the interval(s) on which $f'(x)$ is positive and the interval(s) on which $f'(x)$ is negative.



$$f'(x) > 0: (-\infty, \infty)$$

$$f'(x) < 0: \text{nowhere}$$

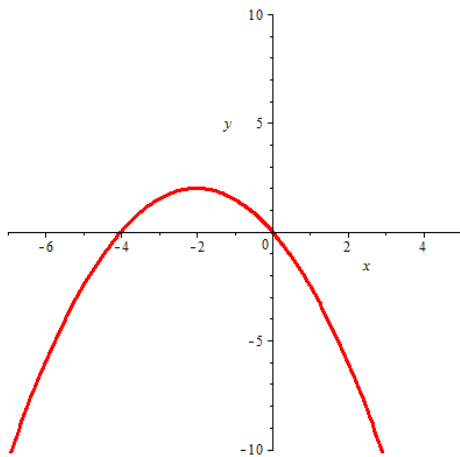
2. Use the graph of $y = f(x)$ below to find the interval(s) on which $f'(x)$ is positive and the interval(s) on which $f'(x)$ is negative.



$$f'(x) > 0: (2, \infty)$$

$$f'(x) < 0: (-\infty, 2)$$

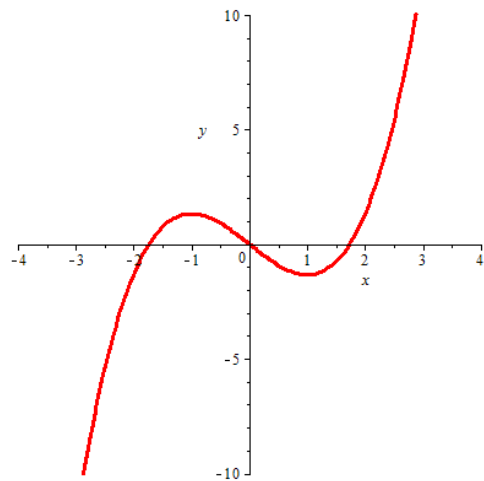
3. Use the graph of $y = f(x)$ below to find the interval(s) on which $f'(x)$ is positive and the interval(s) on which $f'(x)$ is negative.



$$f'(x) > 0: (-\infty, -2)$$

$$f'(x) < 0: (-2, \infty)$$

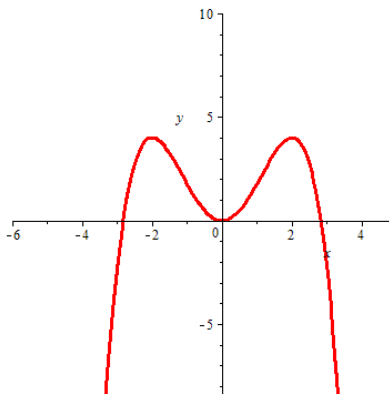
4. Use the graph of $y = f(x)$ below to find the interval(s) on which $f'(x)$ is positive and the interval(s) on which $f'(x)$ is negative.



$$f'(x) > 0: (-\infty, -1), (1, \infty)$$

$$f'(x) < 0: (-1, 1)$$

5. Use the graph of $y = f(x)$ below to find the interval(s) on which $f'(x)$ is positive and the interval(s) on which $f'(x)$ is negative.



$$f'(x) > 0: (-\infty, -2), (0, 2)$$

$$f'(x) < 0: (-2, 0), (2, \infty)$$