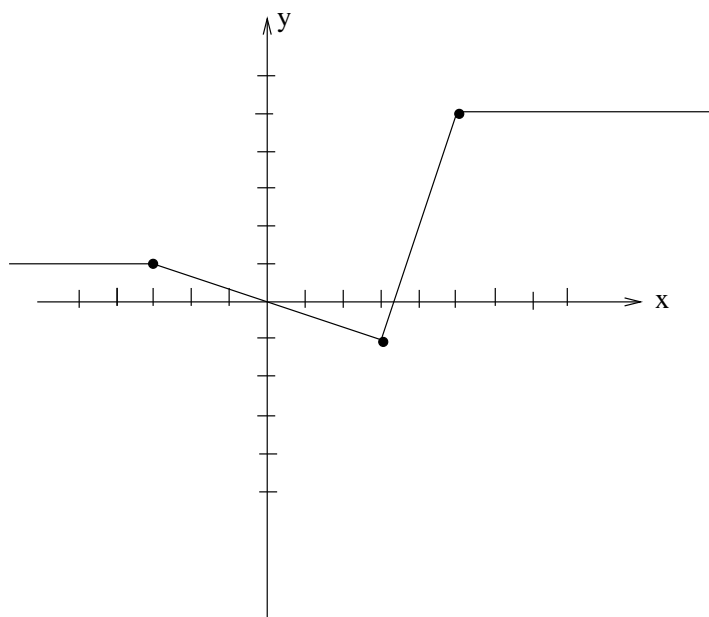


NAME: _____

(1) Use the definition of derivative to find a formula for $f'(x)$ where $f(x) = -3x^2 + 2$.

(2) Below is the graph of $y = f(x)$. On top of this graph, sketch the function $y = f'(x)$



(3) Sketch a function that satisfies the following properties:

- $f'(-1) = 0$ and $f'(1) = 0$
- $f'(x) < 0$ if $|x| < 1$
- $f'(x) > 0$ if $|x| > 1$
- $f(-1) = 4$ and $f(1) = 0$