Find Symmetry Algebraically

Even = symmetrical with the _____   Odd = symmetrical with the _____

If even then $f(x) = f(-x)$.   If odd then $f(-x) = -f(x)$.

Average Rate of Change

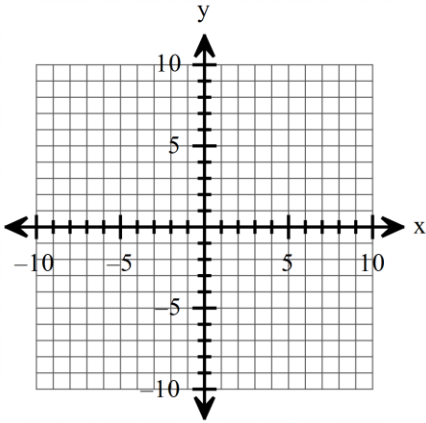$\frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$ Example: Find the average rate of change in the function $f(x) = 4x^2 - 1$ for $[-3, 2]$

Piecewise Functions

A piecewise function has parts of multiple functions to make 1 function.
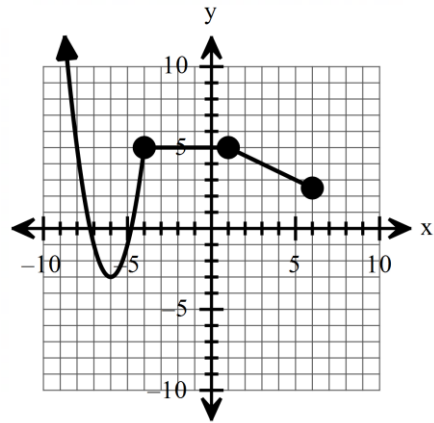
EX. Graph.

$$f(x) = f(x) = \begin{cases} -\frac{1}{2}x, & -6 \le x < 0 \\ 3x - 2, & 0 \le x \le 4 \end{cases}$$

EX. Define the piecewise function given.
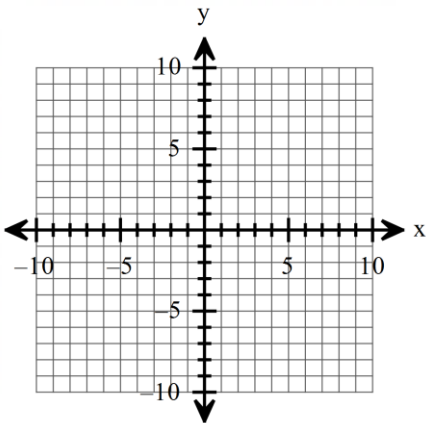
$f(-1) =$ $f(2) =$

$f(0) =$ $f(-7) =$

Piecewise Functions

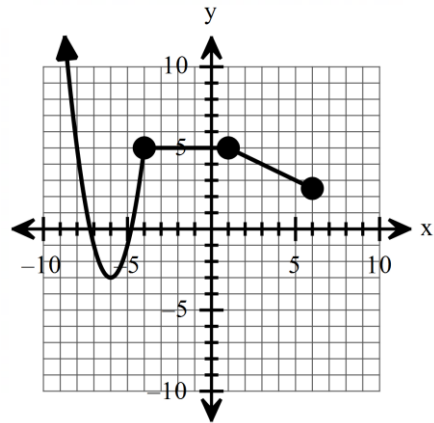A piecewise function has parts of multiple functions to make 1 function.

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