

Piecewise Functions

A piecewise function is a function _____

Examples:

1. Given,

$$f(x) = \begin{cases} x^2; & x < 2 \\ 3x - 2; & 2 \leq x < 7 \\ -\frac{1}{2}x + 10; & x \geq 8 \end{cases}$$

evaluate the function for the given values.

$f(-1) =$

$f(5) =$

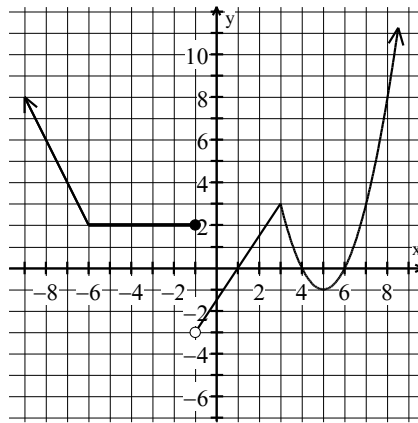
$f(10) =$

$f(2) =$

$f(1) =$

$f(7) =$

2. Write the function to represent the graph given at left.



3. Graph the function.

$$f(x) = \begin{cases} -2(x - 1) - 3; & x < 1 \\ 2(x - 1) - 3; & x \geq 1 \end{cases}$$

*Note...this particular piecewise function can also be written as an absolute value function!

