

Handout 1.4: Piecewise Functions

Name: _____ Date: _____ Per: _____

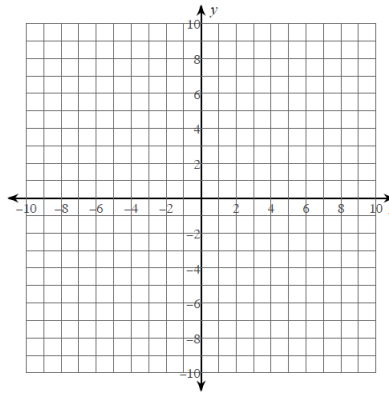
Carefully graph each of the following functions. Then evaluate the graph at the indicated values.

$$1) f(x) = \begin{cases} x + 5 & \text{if } x < -2 \\ \frac{1}{2}x - 1 & \text{if } x \geq -2 \end{cases}$$

$f(3) = \underline{\hspace{2cm}}$

$f(-4) = \underline{\hspace{2cm}}$

$f(-2) = \underline{\hspace{2cm}}$

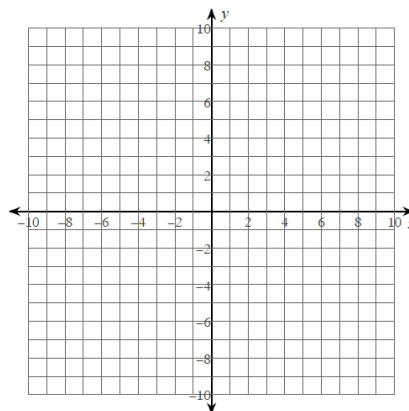


$$2) f(x) = \begin{cases} 2x + 1 & \text{if } x < 4 \\ -\frac{1}{4}x & \text{if } x > 4 \end{cases}$$

$f(0) = \underline{\hspace{2cm}}$

$f(-2) = \underline{\hspace{2cm}}$

$f(4) = \underline{\hspace{2cm}}$

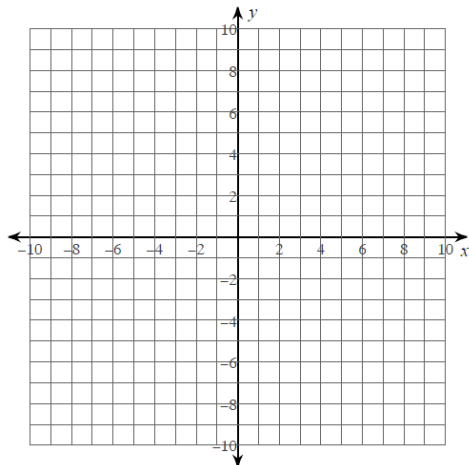


$$3) f(x) = \begin{cases} -3 & \text{if } x < -4 \\ \frac{1}{2}x - 2 & \text{if } -4 \leq x < 2 \\ 2 & \text{if } x \geq 2 \end{cases}$$

$f(2) = \underline{\hspace{2cm}}$

$f(-5) = \underline{\hspace{2cm}}$

$f(0) = \underline{\hspace{2cm}}$



$$4) f(x) = \begin{cases} 4x & \text{if } -2 \leq x < 0 \\ \frac{3}{4}x + 1 & \text{if } 0 \leq x < 4 \\ 4 & \text{if } x \geq 4 \end{cases}$$

$f(5) = \underline{\hspace{2cm}}$

$f(0) = \underline{\hspace{2cm}}$

$f(4) = \underline{\hspace{2cm}}$

