

# Piecewise Functions Worksheet #1

Name \_\_\_\_\_

Evaluate:

1.  $f(x) = \begin{cases} 3-x, & x \leq 1 \\ 2x, & x > 1 \end{cases}$

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

$f(1) = \underline{\hspace{2cm}}$

$f(2.5) = \underline{\hspace{2cm}}$

2.  $f(x) = \begin{cases} 1, & x < 0 \\ \sqrt{x}, & x \geq 0 \end{cases}$

$f(-1) = \underline{\hspace{2cm}}$

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

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

3.  $f(x) = \begin{cases} \frac{1}{x}, & x < 0 \\ -3x, & x \geq 0 \end{cases}$

$f(-1) = \underline{\hspace{2cm}}$

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

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

4.  $f(x) = \begin{cases} 4-x^2, & x < 1 \\ \frac{3}{2}x + \frac{3}{2}, & 1 \leq x \leq 3 \\ x+3, & x > 3 \end{cases}$

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

$f(1) = \underline{\hspace{2cm}}$

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

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

5.  $f(x) = \begin{cases} 1, & x < 5 \\ 0, & x \geq 5 \end{cases}$

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

$f(6) = \underline{\hspace{2cm}}$

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

6.  $f(x) = \begin{cases} x^2, & x < 0 \\ x^3, & 0 \leq x \leq 1 \\ 2x-1, & x > 1 \end{cases}$

$f(-1) = \underline{\hspace{2cm}}$

$f(1) = \underline{\hspace{2cm}}$

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

$f(2.5) = \underline{\hspace{2cm}}$