

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

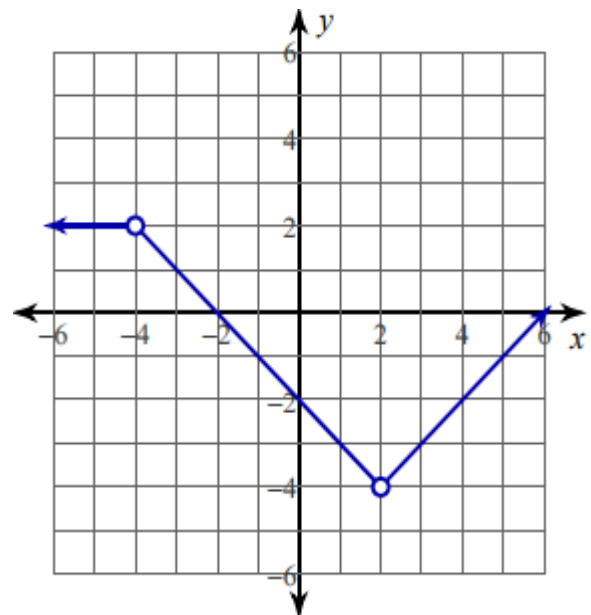
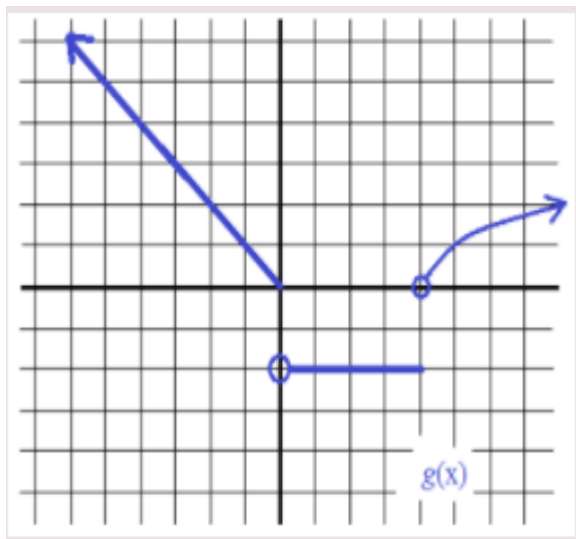
$f(.5) = \underline{\hspace{2cm}}$

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

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

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

5 & 6 Write equations for the piecewise functions whose graphs are shown below.

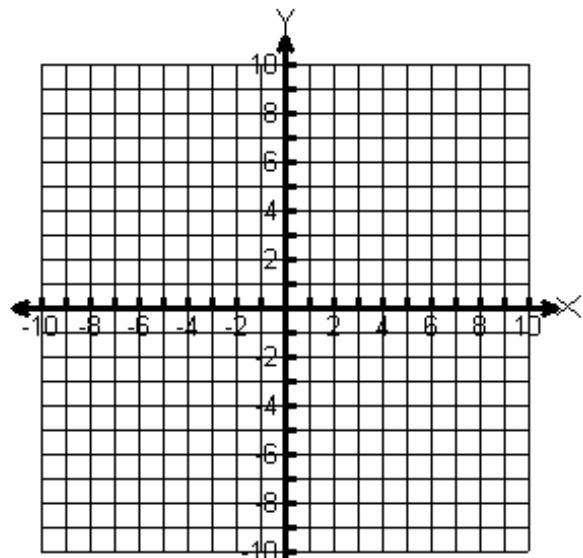


III. GRAPH

8.
$$f(x) = \begin{cases} 2, & x \geq 5 \\ -2x, & -2 \leq x < 3 \\ 2 - x^2, & x < -2 \end{cases}$$

$D_f =$ _____

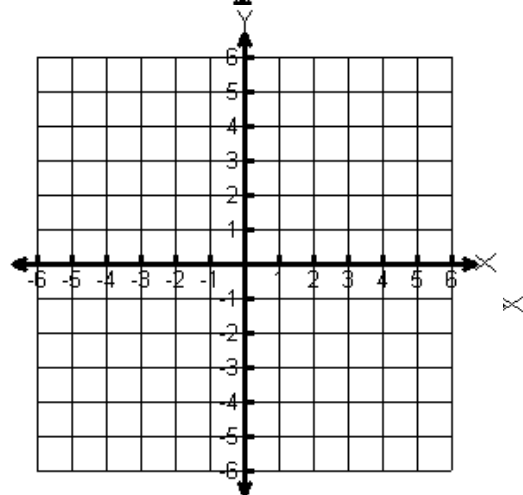
$R_f =$ _____



9.
$$f(x) = \begin{cases} \sqrt{x+3}, & x \geq 1 \\ -x, & x < 0 \end{cases}$$

$D_f =$ _____

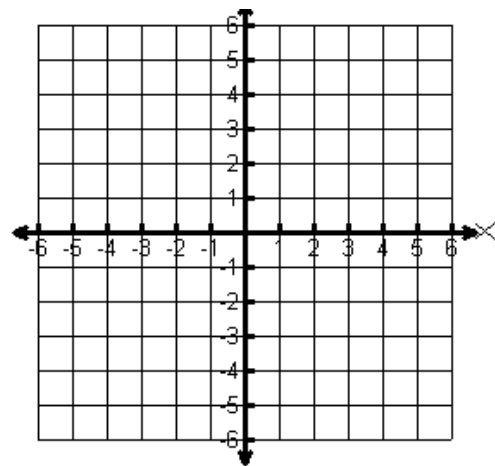
$R_f =$ _____



10.
$$f(x) = \begin{cases} 2x+3, & x < -1 \\ |x|-5, & -1 \leq x < 2 \\ 1, & x \geq 3 \end{cases}$$

$D_f =$ _____

$R_f =$ _____



11.
$$f(x) = \begin{cases} -x, & -4 \leq x < -2 \\ x-3, & -2 \leq x < 1 \\ x^2-2, & x \geq 1 \end{cases}$$

$D_f =$ _____

$R_f =$ _____

