# Intro to Piecewise Functions Worksheet
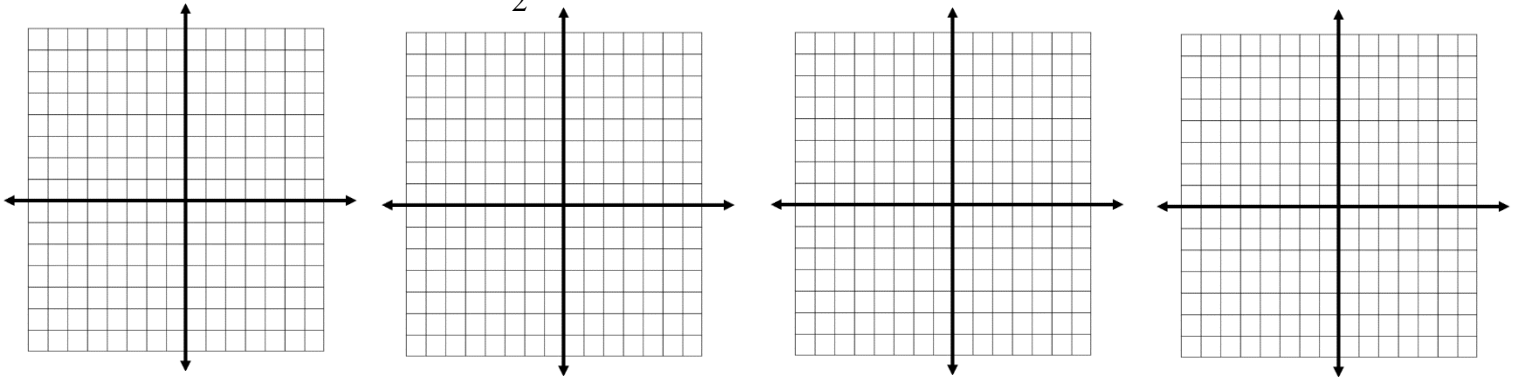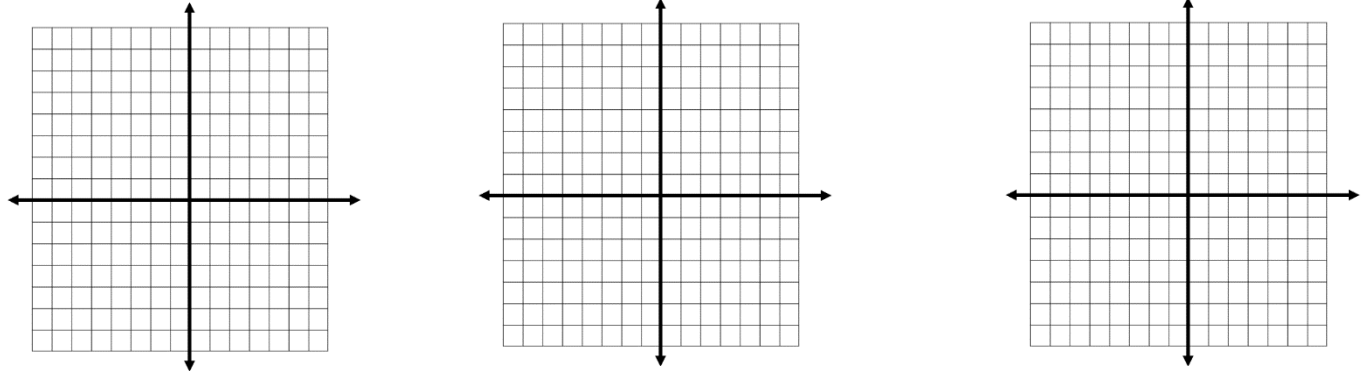
Name:_____Hr: ____

**Graph the following functions with their restricted domains.**

1. $y = 2x + 1, \quad x \le 3$

2. $y = -\dfrac{1}{2}x + 3, \quad x > 4$

3. $y = |x + 2|, \quad -4 \le x \le 2$
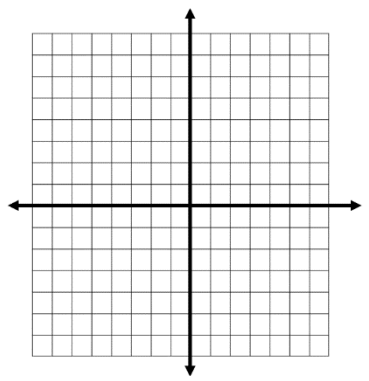
4. $y = 5, \quad -1, < x < 4$

**Graph the following piecewise functions.**

5. $f(x) = \begin{cases} -2x + 1 & x \le 2 \\ ||x - 4| & x > 2 \end{cases}$

6. $f(x) = \begin{cases} 5 & x \le -3 \\ -2x - 3 & x > -3 \end{cases}$

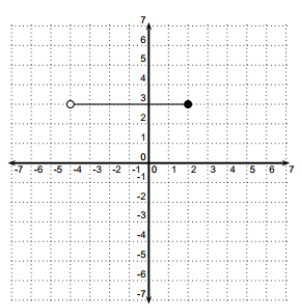7. $f(x) = \begin{cases} 2x + 3, & x < -1 \\ |x| - 5, & -1 \le x < 2 \\ 1, & x \ge 3 \end{cases}$

8. $f(x) = \begin{cases} x + 1, & x \le 0 \\ 2x - 1, & 0 < x \le 4 \\ 3, & x > 4 \end{cases}$

**Write an equation with its restricted domain for each graph**

9.

10.