

Name: _____

Unit 3: Parent Functions & Transformations

Date: _____ Per: _____

Homework 2: Graphing Absolute Value Functions & Inequalities

**** This is a 2-page document! ****

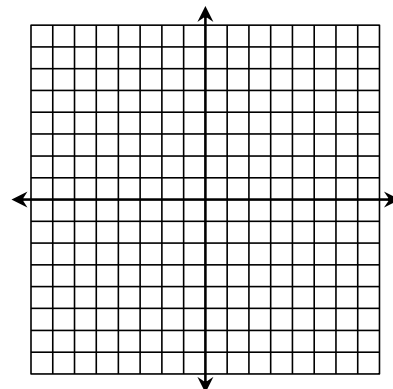
Graph each function. Identify the domain and range.

1. $f(x) = |x + 6|$

$D =$ _____

$R =$ _____

x	y

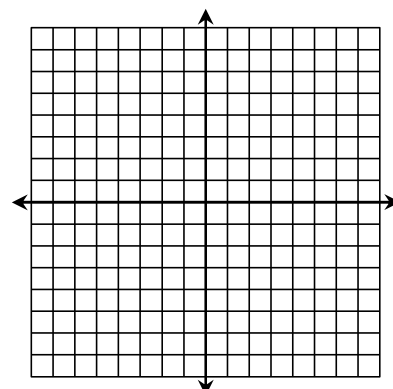


2. $f(x) = |x - 1| + 2$

$D =$ _____

$R =$ _____

x	y

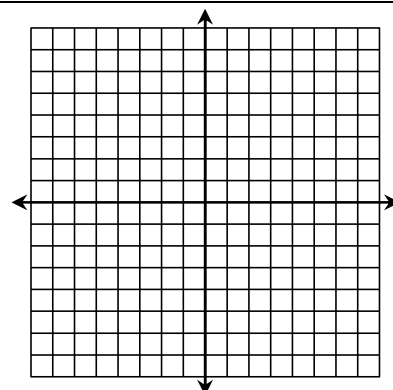


3. $f(x) = |3x - 4|$

$D =$ _____

$R =$ _____

x	y

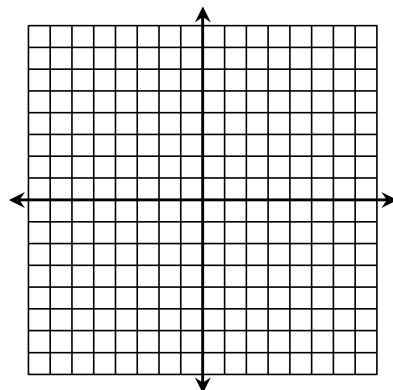


4. $f(x) = -|2x| + 7$

$D =$ _____

$R =$ _____

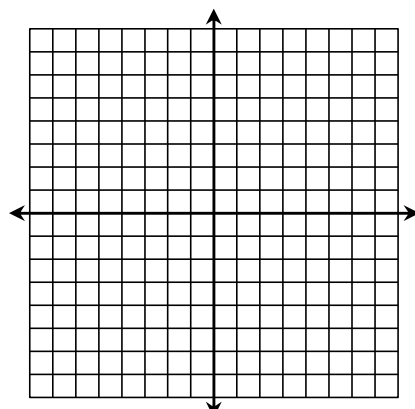
x	y



5. $f(x) = \begin{cases} -|x| + 3 & \text{if } x \leq -2 \\ 4x + 1 & \text{if } x > -2 \end{cases}$

$D =$ _____

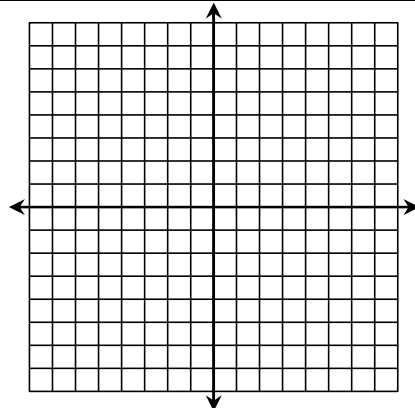
$R =$ _____



6. $f(x) = \begin{cases} -1 & \text{if } x \leq -6 \\ -x - 4 & \text{if } -6 < x \leq 0 \\ |2x - 5| & \text{if } x > 0 \end{cases}$

$D =$ _____

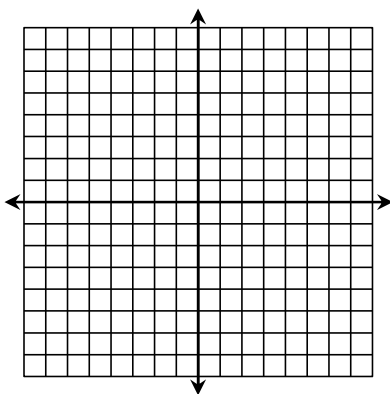
$R =$ _____



Graph each inequality.

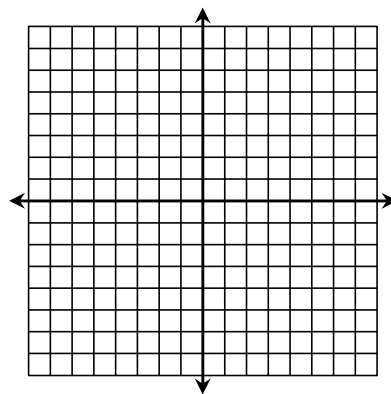
7. $y \geq |x| + 2$

x	y



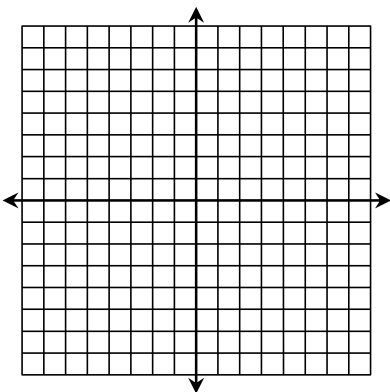
8. $y < -|x - 4|$

x	y



9. $y < |4x + 1| - 3$

x	y



10. $y \geq -|3x + 6| + 1$

x	y

