

**Chapter 1.3 – Piecewise & Absolute Value Functions “I Can”**

Name: \_\_\_\_\_

Standard: PR.2.1

I Can...

- Graph relations and functions of piecewise-defined functions
- Graph absolute value functions.
- Identify and describe features of each type of function (domain, range, etc).

**Items in bold must be turned in to me**

\_\_\_\_\_ **video notes (2)**

\_\_\_\_\_ **worksheet**

\_\_\_\_\_ **rollercoaster investigation**

\_\_\_\_\_ video on domain/range

\_\_\_\_\_ book assignment

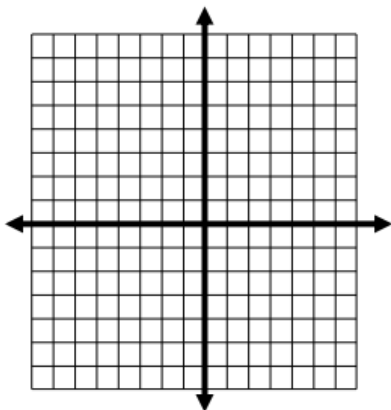
\_\_\_\_\_ pre-mc

\_\_\_\_\_ **mastery check**

Pre-MC:

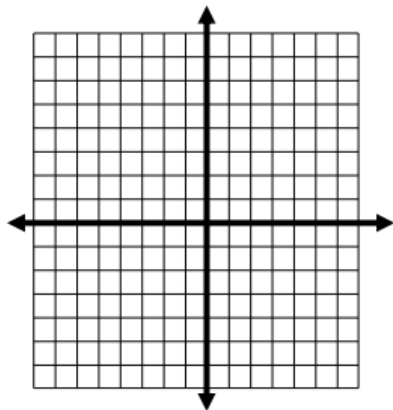
**Graph the functions and state the domain and range.**

1.  $f(x) = -2|x + 1| + 3$



Algebra 2

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



3. Your favorite dog groomer charges according to your dog's weight. If your dog is 15 pounds and under, the groomer charges \$35. If your dog is between 15 and up to 40 pounds, she charges \$40. If your dog is over 40 pounds, she charges \$40, plus an additional \$2 for each pound

a. Write a piecewise function that describes what your dog groomer charges.

b. Graph the function.

c. What would the groomer charge if your dog weighs 60 pounds?

4. A truck's speedometer reads 40 miles per hour.

a. Write an absolute value function for the difference between the truck's actual speed and the reading on the speedometer.

b. What is an appropriate domain for the function?