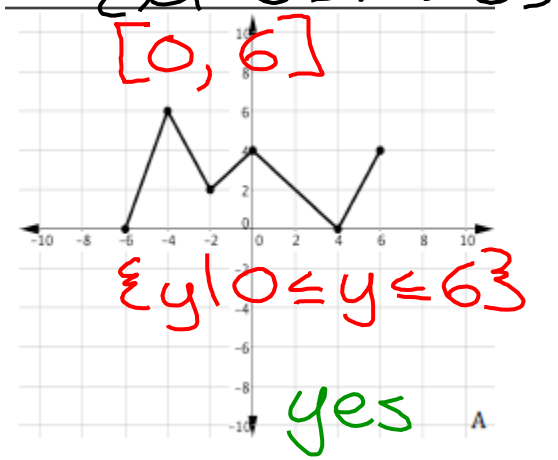
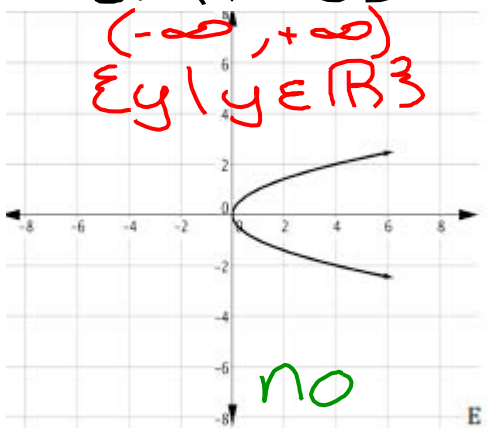
Warm-up

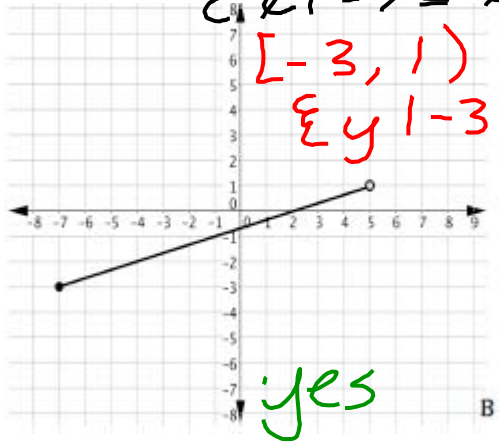
- Domain
- Range

$y \in \mathbb{R}$ (element of, real number)

- Find the domain and range of the following graphs. Determine if they are functions







Notation Activity

Function Notation

$$y = 5x - 1$$

$$f(x) = 5x - 1$$

$y = 6$

$f(x) = 6$

$6 = 5x - 1$

What is y when x = -6? $y = 5(-6) - 1$

What is f(-6)? $f(-6) = 5(-6) - 1$

$f(-6) = 31$

Function Notation?

1. **Given $f(x) = 2x^2 - 8$, find each value.**

a. $f(6) = 2(6)^2 - 8$

$f(6) = 64 \quad = 2(36) - 8$

$= 72 - 8$

b. $f(2y) = 2(2y)^2 - 8$

$= 2(4y^2) - 8$

$f(2y) = 8y^2 - 8$

2. **Given $g(x) = 0.5x^2 - 5x + 3.5$, find each value.**

a. $g(2.8) = 0.5(2.8)^2 - 5(2.8) + 3.5$

$g(2.8) = -6.58$

b. $g(4a) = 0.5(4a)^2 - 5(4a) + 3.5$

$g(4a) = 8a^2 - 20a + 3.5$

Are these the same?

$$f(x) = 3x + 5$$

$f(x+2) = 3(x+2)+5$ $\qquad$ $f(x)+2 = 3x+5+2$

Quizlet Live Take-Two

Functioning Well

Complete sheet for Homework