

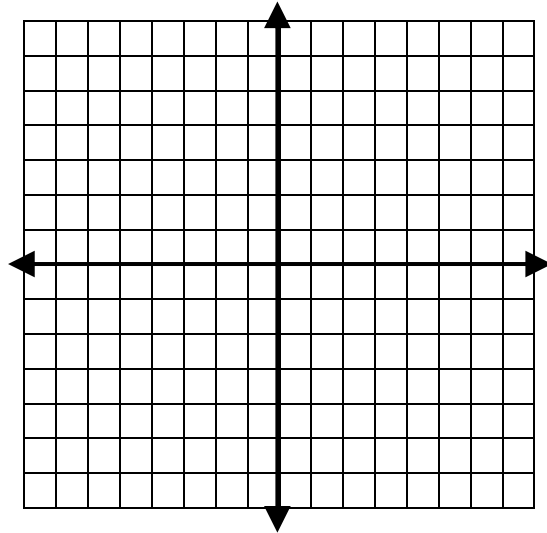


## Graphing Linear Functions with Restricted Domains

1. Graph the following linear function using the domain  $-1 \leq x \leq 3$  where  $x$  is a real number.

x	y

$$y = 2x - 1$$



Represent the **range** of the function using an inequality statement and interval notation.

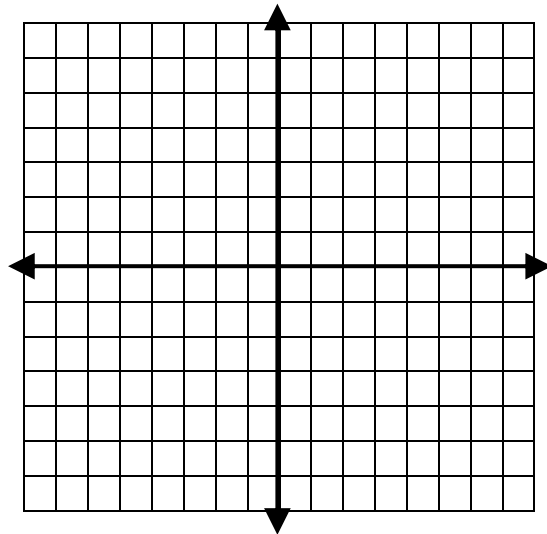
**Inequality Statement:** \_\_\_\_\_

**Interval Notation:** \_\_\_\_\_

2. Graph the following linear function using the domain  $0 \leq x \leq 2$  where  $x$  is a real number.

$$4y + 12x = 8$$

x	y



Represent the **range** of the function using an inequality statement and interval notation.

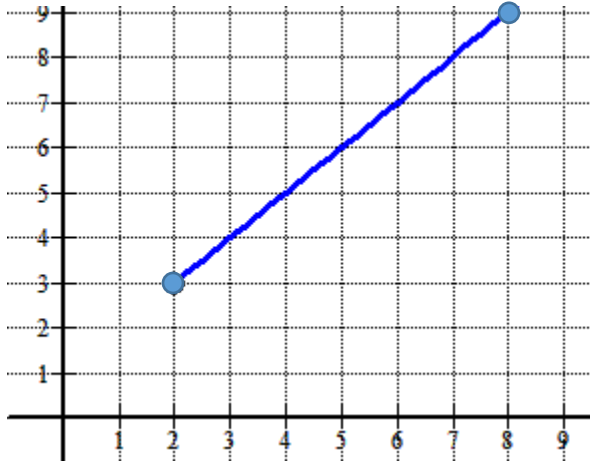
**Inequality Statement:** \_\_\_\_\_

**Interval Notation:** \_\_\_\_\_

## Defining the Domain and Range from a Graph

Consider the linear functions graphed below. Define the **domain** and **range** of the function using an inequality statement and interval notation.

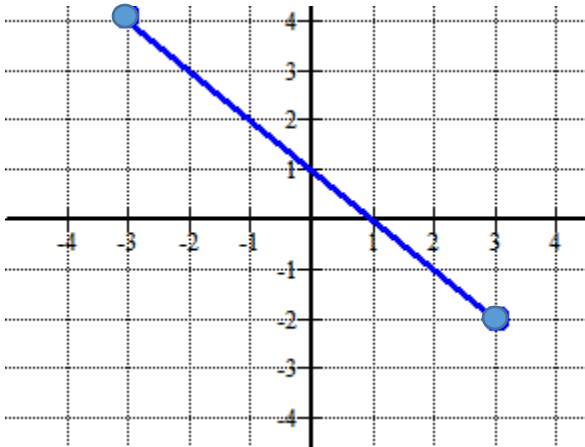
3.



Domain:

Range:

4.



Domain:

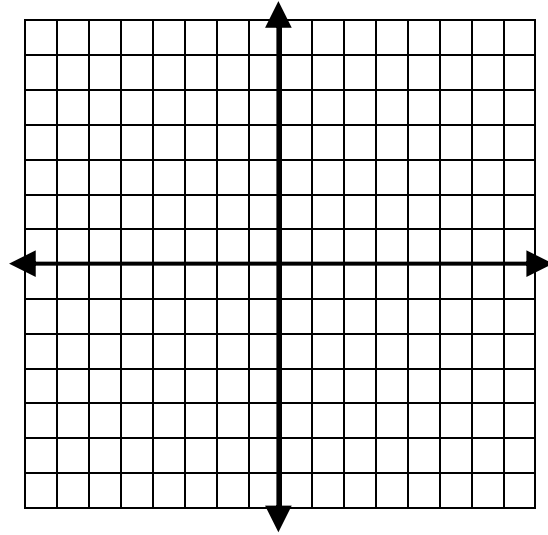
Range:

### The Take Away

Linear functions with restricted domains have \_\_\_\_\_ ranges.  
The domains and ranges of the functions can be defined using an inequality statement or interval notation.

1. Graph the following linear function using the domain  $-6 \leq x \leq -2$  where  $x$  is a real number.

$$y - x = 1$$



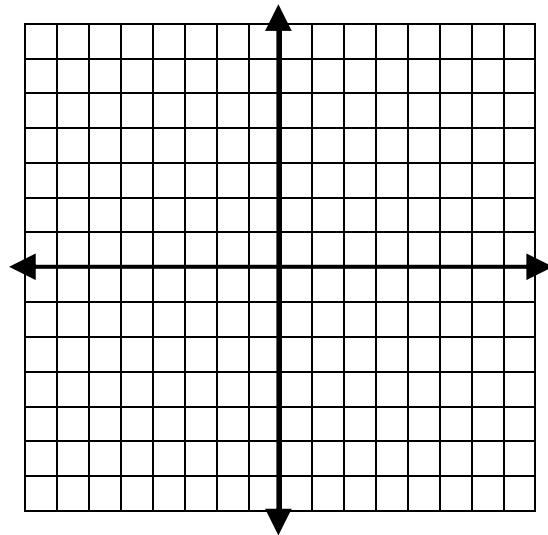
Represent the **range** of the function using an inequality statement and interval notation.

**Inequality Statement:** \_\_\_\_\_

**Interval Notation:** \_\_\_\_\_

2. Graph the following linear function using the domain  $-8 \leq x \leq 4$  where  $x$  is a real number.

$$y = -0.25x + 2$$



Represent the **range** of the function using an inequality statement and interval notation.

**Inequality Statement:** \_\_\_\_\_

**Interval Notation:** \_\_\_\_\_