BELL WORK

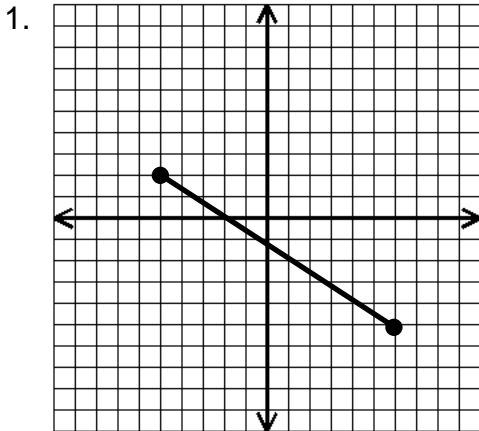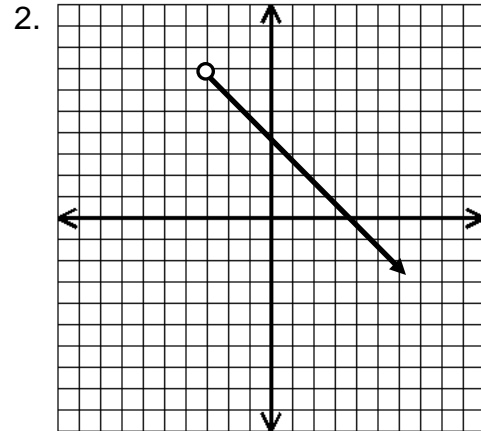**Find the domain and range for each of the following.**

1.

2.

Domain:_____

Range:_____

Domain:_____

Range:_____

_____ is a special type of linear relationship that can be written in the form of **y = kx**, where **k** is called the **constant of variation.**

The graph of a **direct variation** equation y = kx is a line with the following properties:
- The line passes through the origin, which means the y-intercept is (0, 0).
- The slope of the line is k.

EXAMPLES: Determine if the relationship is a direct variation. If so, write the equation.
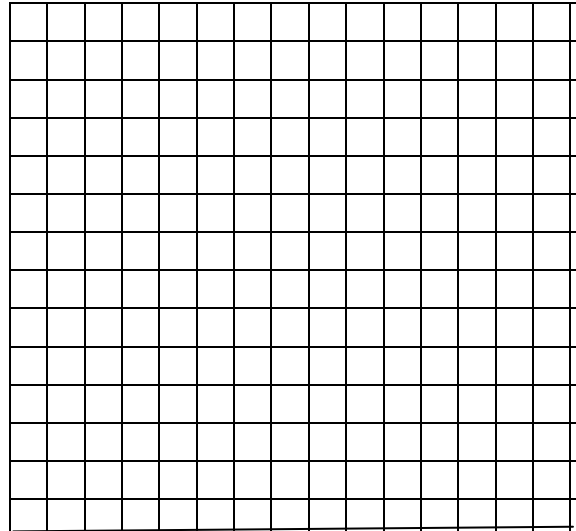
1.

x	1	3	5
y	6	18	30

2.

x	y
-3	0
1	3
3	6

3. The number of hamburgers that can be made varies directly with the weight of ground beef that is used. Five hamburgers can be produced for every two pounds of ground beef. Write a direct variation equation for the number of hamburgers *y* that can be made from *x* pounds of ground beef. Then graph the relationship.

4. The mass of a substance varies directly with the volume of the substance. The volume of 100 kilograms of the substance is 80 liters. What is the volume, in liters, of 3.2 kilograms of the substances?

5. The value of y varies directly with x. Which function represents the relationship between x and y if y = 24 when x = 18?

6. The amount of blood in a person's body varies directly with body weight. A person who weighs 160 lbs. has about 4.6 qt of blood. What equation could be used to represent this relationship and find how many quarts of blood are in the body of a 208.7 lb. person?