

## Patterns and Linear Functions Bell Work

Fill in the blanks with appropriate words.

1. The relationship data represented as  $(x,y)$  is termed as representation of data using \_\_\_\_\_.
2. A function is a relation in which each \_\_\_\_\_ is related to one and only one output.
3. A function is a linear function if its graph is a \_\_\_\_\_.
4. In mathematics, anything arranged following a certain rule or a set of rules represent a \_\_\_\_\_.

Graph the set of ordered pairs  $(1,2)$ ,  $(2,3)$ ,  $(3,4)$ ,  $(4,5)$ . Determine whether the relationship represents a linear function.

Graph:

For the table given below, determine whether the relation is a function. Then represent the function using words, an equation, and a graph. Also tell whether the relation is a linear function.

Time (minutes)	10	20	30	40
Distance (km)	50	100	150	200

Using words:

Using Equation:

Using Graph:

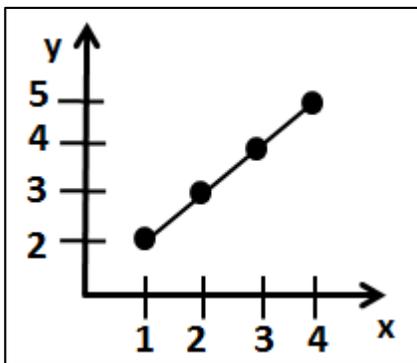
## Patterns and Linear Functions Bell Work

Fill in the blanks with appropriate words.

1. The relationship data represented as  $(x,y)$  is termed as representation of data using **ordered pairs**.
2. A function is a relation in which each **input** is related to one and only one output.
3. A function is a linear function if its graph is a **straight line**.
4. In mathematics, anything arranged following a certain rule or a set of rules represent a **pattern**.

Graph the set of ordered pairs  $(1,2), (2,3), (3,4), (4,5)$ . Determine whether the relationship represents a linear function.

Graph:



**Since the graph makes a straight line, it is a linear function.**

For the table given below, determine whether the relation is a function. Then represent the function using words, an equation, and a graph. Also tell whether the relation is a linear function.

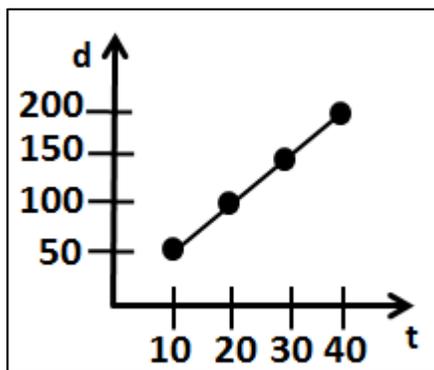
Time (minutes)	10	20	30	40
Distance (km)	50	100	150	200

## Patterns and Linear Functions Bell Work

Using words: **The distance travelled is 5 times the number of minutes.**

Using Equation:  **$d = 5t$  ;  $d = \text{distance}$ ,  $t = \text{number of minutes}$**

Using Graph:



**The graph makes a straight line, so it is a linear function.**