

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:

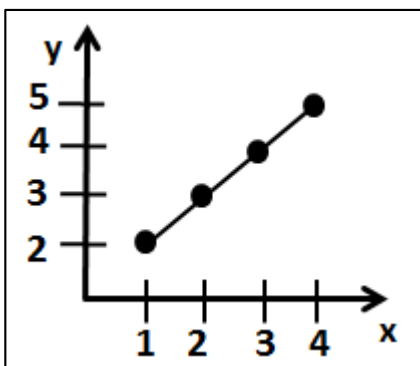
Patterns and Linear Functions Bell Work

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.

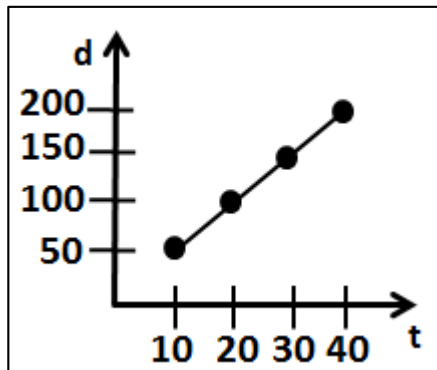
Time (minutes)	10	20	30	40
Distance (km)	50	100	150	200

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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.