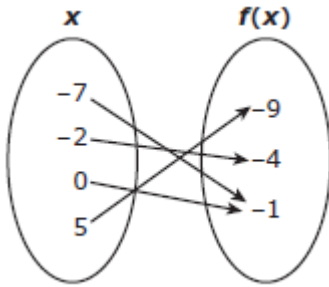


# BELL WORK

## GRAPHING RELATIONSHIPS

1. What is the range of the function shown below?



F  $\{-7, -2, 0, 5\}$

G  $\{-9, -4, -1\}$

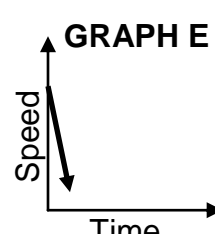
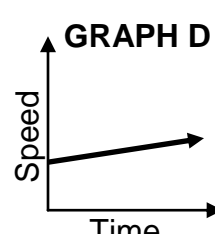
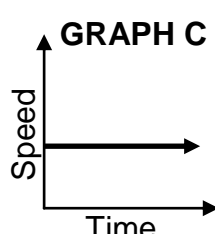
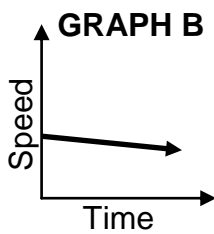
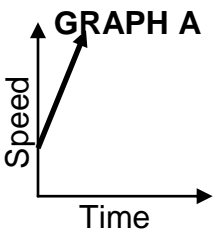
H  $\{-9, -7, -4, -2, -1, 0, 5\}$

J  $\{-1\}$

2. Is the given relation a function? Yes or No

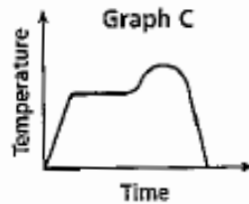
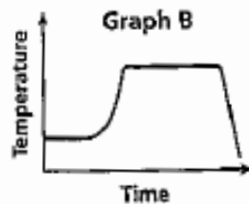
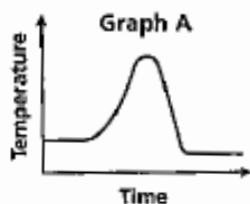
The sentences below describe the motion of 5 cars on a highway. Match each sentence with the graph that represents it best.

- The car's speed remains constant. \_\_\_\_\_
- The car's speed increases slowly but steadily. \_\_\_\_\_
- The car's speed increases sharply. \_\_\_\_\_
- The car's speed decreases gradually. \_\_\_\_\_
- The car's speed decreases suddenly. \_\_\_\_\_



Choose the graph that best fits the situation.

- Stayed the same, rose steadily, remained constant, and dropped sharply. \_\_\_\_\_
- Increased steadily, remained constant, rose slightly and dropped suddenly. \_\_\_\_\_
- Remained steady, rose steadily, dropped steadily and remained the same. \_\_\_\_\_



**REMEMBER:** INDEPENDENT VARIABLE – input value, on the x-axis

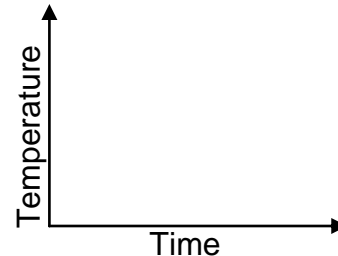
DEPENDENT VARIABLE – output value, on the y-axis

The value of the DEPENDENT VARIABLE \_\_\_\_\_ on the value of the INDEPENDENT VARIABLE.

The DEPENDENT VARIABLE is a \_\_\_\_\_ the INDEPENDENT VARIABLE.

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9. **Sketch a graph for the situation:** The air temperature increased steadily for several hours and then remained constant. At the end of the day, the temperature increased slightly again before dropping sharply.



Independent Variable: \_\_\_\_\_

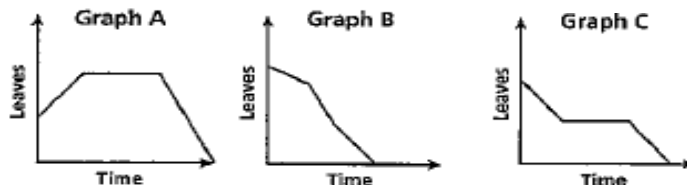
Dependent Variable: \_\_\_\_\_

The \_\_\_\_\_ is a function of \_\_\_\_\_.

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**Each day several leaves fall from a tree. One day a gust of wind blows off many leaves on the tree. Eventually there are no more leaves on the tree.**

10. Choose the graph that best represents this situation.



11. Which statement is true? \_\_\_\_\_

A) The number of leaves on the tree DEPENDS ON how many days have passed.

B) The number of days that have passed DEPENDS ON how many leaves are on the tree.

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**A balloon is being inflated with air. As more air is pumped into the balloon, the volume increases until it finally bursts.**

12. Sketch a graph that represents this situation.

a) Independent Variable: \_\_\_\_\_

b) Dependent Variable: \_\_\_\_\_

c) The \_\_\_\_\_ is a function of \_\_\_\_\_.

