INTRODUCTION TO $\mathbf{y}=\mathbf{m x}+\mathbf{b}$

1. Jake averages 20 points per game when he plays at least 30 minutes in a basketball game. What is the functional relationship between the total number of points that Jake scores and the number of minutes he plays in the basketball game.
A. The number of minutes is dependent on the total number of points.
B. The total number of points is dependent on the number of minutes.
C. The total number of points and number of minutes are each dependent on the other.
D. There is no functional relationship.
2. Carly notices that her height, $h$, is $1 / 2$ of her father's height, $f$. Which equation best represents this relationship?
A. $h=1 / 2 f$
B. $h=-1 / 2 f$
C. $h=f-1 / 2$
D. $h=1 / 2-f$


## Example \#1

TABLE

| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| $\mathbf{- 2}$ | 9 |
| $\mathbf{- 1}$ | 4 |
| $\mathbf{0}$ | -1 |
| $\mathbf{1}$ | -6 |
| $\mathbf{2}$ | -11 |

## INFORMATION

Rate of change:
Beginning:
Does the graph increase or decrease?


EQUATION: $\qquad$

## Example \#2



## Example \#3



