

A function in the form $y = mx + b$ represents a linear relationship between two quantities, x and y .

The m represents the constant rate of change.

$$y = mx + b$$

The b represents the initial value.

When graphed, the points (x, y) in a linear function always form a straight line.

Angelo's mother put \$50 on his lunch card. He spends the same amount each day for lunch. Write a function that gives the amount of money remaining on Angelo's lunch card over time.

- Complete the table to show how much Angelo has left on his card after each day.

Days	0	1	2	3
Money Remaining	<input type="text"/>	44.75	39.5	<input type="text"/>

- Choose two ordered pairs and write a ratio that can be used to find the slope or constant rate of change.
- What is the constant rate of change for this function?
- What is the initial value for this function?
- What equation can be used to represent the money remaining, y , for a given day, x ?

On the Back!

- The deli charges \$7.50 for a salad weighing 3 pounds. A salad weighing 4 pounds costs \$9. What equation can be used to represent the cost of the salad, y , for x pounds of salad?