

What questions can we ask about this table?

Time t (seconds)	Distance d (miles)
1	5
2	10
3	15
4	20
5	25

1. What is the rate of change?

x column up by 1's $\Delta x = +1$

y column up by 5's $\Delta y = +5$

Rate of Change

$$\frac{\Delta y}{\Delta x} \quad m = \frac{5}{1}$$

2. How is rate of change related to the equation of a line?

Rate of Change 15

shown as m in

$$y = mx + b$$