1. Find the <u>rate of change</u> from each table:

a.

Days	Money
0	20
1	30
2	40
3	50

b.

Years	Inch.
0	3
1	4.5
2	10
3	12.3

c.

Hours	Miles
0	0
1	6
2	12
3	18

R.O.C._____   R.O.C._____   R.O.C._____

2. ONLY tables that have a constant R.O.C. are linear. So which tables in #1 are linear? *Circle them above!*

3. If a table is linear, it has an equation that looks like this:

Write the <u>equation</u> for each linear table above:

$$y = \boxed{\substack{\text{*Rate of change} \\ \text{*unit rate} \\ \text{*slope}}} \; x \; + \; \boxed{\substack{\text{*Starting point} \\ \text{*y-intercept}}}$$

_____   and   _____

4. Identify the <u>rate of change</u> in each equation below:

a. $y = -5x$ b. $M = 2d + 17$ c. $y = 14x + 1$
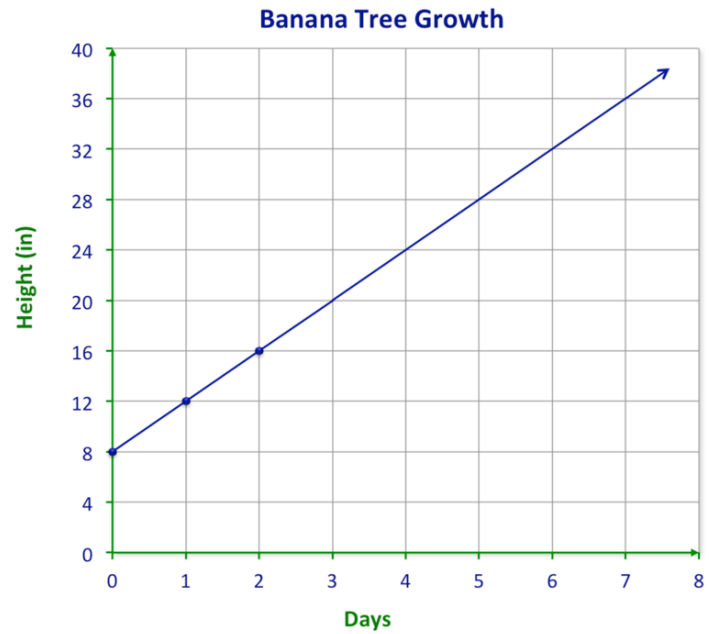
R.O.C._____   R.O.C._____   R.O.C._____

5. Graphs can also show a rate of change. Sometimes it is easier to find the rate of change by putting information from the graph into a table.

a. Use the graph at right to fill in this table:

Banana Tree Growth

Days	Height
0	
1	
2	
3	
4	
5	

b. Find the <u>rate of change</u> from either the graph or your table:

c. Write the <u>equation</u> for this linear relationship:

6. How do you know if a situation represent a linear relationship? Explain using sentences.