

Saving for an iPhone Investigation

Names _____

Today we will...

1. Create a three-column table using the given data
2. Graph the three savings plan on the same coordinate plane
3. Identify the independent and dependent/control variables
4. Write an equation for each savings plan
5. Infer what each person would have after “x” number of months
6. Summarize the learning in the form of a written reflection

Scenario:

Tom, Dan, and Jill each want to buy a new iPhone. The iPhone costs \$600.00.

1. *Tom has \$300.00 in his savings account and plans to put \$25.00 more away each month until he raises enough to buy the iPhone.*
2. *Dan does not have in money in his savings account, but plans to save \$40.00 per month until he raises enough to buy the iPhone.*
3. *Jill does not have in money in her savings account, but plans to save \$60.00 per month until she raises enough to buy the iPhone.*

Directions:

1. *Answer every question below on the front of the chart paper. Write your names on the back.*
2. *Each person must show evidence that he/she participated on every question by writing on the chart paper with their marker color.*
3. *You will work in cooperative groups and by working in groups; you will need to come to a consensus on each question before moving on to the next problem.*
4. *We will assess our learning at the end of the investigation.*
5. *When your group turns in their final product, remember the question is; “Would I hire you?” “Did you use a yardstick, rulers, and markers?”*

Investigation Questions: (Remember each question must be answered on the chart paper.)

1. *Make a three-column table showing the number of months spent saving for the iPhone and the total amount in savings for Tom, Dan, and Jill for 0 to 15 months.*
2. *Graph the three savings plans on the same coordinate plane, using a different color for each person’s savings plan. Answer the following questions on the chart paper:*
 - a. *What is the independent/control variable? (Please label on the chart paper.)*
 - b. *Where can you see the independent variable on the graph?*
 - c. *What is the dependent variable?*
 - d. *Where can you see the dependent variable on the graph?*
3. *For each person, write an equation that can be used to calculate the number of months it takes to earn \$600.00 for the iPhone. Write each equation on the chart paper.*

4. After the 5th month, how much would each person have in their savings account? Did you use the table, graph, or the equation to answer the question? Write your answers on the chart paper.
5. Use the equations to calculate the number of months it would take Jill to save half of her goal. Show all steps of your work on the chart paper.
6. Sarah is a friend of Tom, Dan, and Jill. She wants to buy an iPhone, but has no money in her savings account. She wants to buy her iPhone before her friends purchase theirs. Write an equation showing the amount that Sarah could save each month to purchase her iPhone before her friends.
7. Graph Sarah's equation on the same coordinate plane as her friends using another color.
8. During which months has Tom saved the most money? Jill?

Group Assessment:

As a group, write your first and last name in the box that best describes your work ethic today on the iPhone Investigation. Your group must agree.

	<u>Outstanding</u> 10.0 - 9.0	<u>Satisfactory</u> 8.9-8.0	<u>Needs Improvement</u> 7.9-7.0	<u>Unsatisfactory</u> 6.9 and below
<u>Prepared to Learn</u>	Consistently brings needed materials to class and is consistently ready to learn	Usually brings needed materials to class and is ready to learn	Sometimes brings needed materials and sometimes needs reminders and redirection in order to be ready to learn	Rarely brings needed materials to class nor is ready to learn
<u>Productive in Class</u>	Consistently contributes, stays on task and works well with others in a collaborative environment	Usually contributes, stays on task and works well with others in a collaborative environment	Sometimes contributes, stays on task and/or works with others in a collaborative environment	Rarely contributes, stays on task and/or works with others in a collaborative environment
<u>Productive on Homework</u>	Consistently completes and turns in assignment(s) on time; follows directions; completes all aspects of assignment(s)	Usually completes and turns in assignment(s) on time; follows directions; completes most aspects of assignment(s)	Sometimes turns in assignment(s) on time; assignment(s) are not always complete	Rarely turns in assignments on time; rarely turns in assignments completed

***Using tape, on the supply table, hang up your poster.
Turn in one lab sheet per group to the basket.***