Task #2

Direction:

So, you've never been a member of a gym before, but maybe you'd be more inspired to work out, especially in the winter, if you actually joined a gym. It looks pretty nice, sauna, bodybuilding, and aerobics.

The question is!!! How much would it costs to join? There are two plans at the gym.

Plan 1: $1 enrollment, plus $39.95 a month.	**Plan 2:** a $99 enrollment fee, plus $29.95 a month.

You job is to use what you have learned about solving equations with variables on both sides to find the best plan.

- ✓ **Task:** The best plan depends on how long you're going to join for.
  - You can use algebra to compare the plans.
  - Solve the equation and answer the questions below.
  - Find the numbers of months where the cost of the two plans are equal
  - Create a graph showing the proportional relationship.

Plan 1 written algebraically	**Plan 2 written algebraically**
1. The first special plan, plan one, cost $1 to join and $39.95 for each month after that. Algebraically: 1 + 39.95m.	1. The second special plan, plan two, costs $99 to join and $29.95 for each month after that. Algebraically: 99 + 29.95m.

Question:

1. If you joined for one month, how much would plan 1 and plan 2 cost you?
2. How much would it cost over a longer period of time?
3. How do we find the number of months where the cost of the two plans are equal?

Task #3:

Direction:

Valencia has a baby-sitting job that pays her $9.00 an hour, plus an extra $15 if she shows up early. Write the linear equation and create a table of data to show how much money she will earn if she works 11, 13, 15, 17, 19 hours. Create a graph to show the data from the table.

1. Write the ratio 20 students to 5 computers as a unit rate. Create a table to show how many computers 32 students will have. Hint: Use unit rate.

Students		20	32		48
Computers		5		9	

a. Determine whether the ratio of students to computers is in proportional relationship, explain how you know!
b. What is the constant of proportionality? (Unit rate)
c. Write the equation to represent the information in the table.

2. Luz earns $400 for 40 hours of work. Create a ratio table to determine how much she earns for 6 hours of work.

Money Earned		$400			
Hours		40	45	50	55

a. Determine whether the ratio of **money earned** to **hours worked** is in **proportional relationship**, explain how you know!
b. What is the constant of proportionality? (**Hint Unit Rate**
c. Write an **equation** to represent the information in the table. (y = mx).