Project – How to Become a Millionaire
Annuities and Compound Interest

This project has 2 parts, a group part and an individual part.

<u>Group Part – (5 points)</u>

You just graduated from college and you have decided to start saving for retirement. You think back to your Algebra 1b teacher and remember that you were taught about Annuities.

You decide to save $3000 each year into an Annuity (only $250 per month) and figure that the long term "interest rate" in the Stock Market will easily earn 9%.

<u>Formula</u>:

$$Balance = P\left(\frac{(1+r)^t - 1}{r}\right).$$

Where: Balance = amount of money after t years
P = amount of money invested each year
t = number of years
r = interest rate percent (in decimal)

<u>Let's simplify the formula below</u>

Make a table for {0, 10, 20, 30, 40, 50} years

Years	Balance

Your group must add this graph to your "How to become a Millionaire" graph for the classroom. It will be graded on the following criteria:
- Accuracy
- Neatness
- Correct Scale for Axes

Individual Part – (10 points)   (Due Monday)

The Story (5 points)

For the individual part, you must write your own story for your life and retirement savings plan.

Please include the following:

- When you will graduate from high school
- Your post high school plans (Work, Trade School, University, …)
- At what age you plan on starting your retirement savings?
- How much money you will save each year?
- What is your predicted "interest rate"? (you may use 9% as we did in class)
- For how long will you be saving? (you must have at least $1,000,000 before you retire!!)

It is a requirement that your retirement savings plan includes an annuity!!!

I would like this part typed (if you do not have a computer/printer at home, you will have to use the library)

The Mathematics (5 points)

Your story will determine what goes here.

You should include:

- The proper formula (compound interest and/or annuity)
- A table of values (like in class) for the domain {0, 10, 20, 30, … }
- A graph for your table (proper scale on axes) on Graph Paper.