Math 105-30 Summer Term III
Project 1 Due 07/26 Name: _____

This project is worth 70 points. You should clearly show all of your work and justify your answers where appropriate. It must be submitted no later than the beginning of class on July 26th. **No late projects will be accepted, nor will any e-mail submissions be accepted unless otherwise specified by the instructor.** You may use scrap paper as needed, but please turn in your final project, with complete steps for all of your calculations, on the worksheets that have been provided and make sure that your work is neatly organized and that your final answers are written in complete sentences for all parts. Neatness of your presentation and complete sentences do count!

1. (*14 points*) In your own words, describe the difference between the FA formula and the PV formula. Be sure to explicitly describe when you use each.

2. (*14 points*) For the past ten years your uncle has been depositing $1,000 at the end of each year in the savings account that pays 6.5% compounded annually. What was the value of the account just after the tenth deposit? How much interest had been earned?

3. (*14 points*) Best Buy offers a TV for $300 down and $15 per month for the next 24 months. If interest is charged at 9% commpounded monthly, find the cash value of the TV. How much total interest will the customer pay with this offer?

4. (*14 points*) A family wants to start a savings account for college expenses 18 years from now, and will make their first deposit at the end of this month. What equal monthly deposits in an account paying 5.0% compounded monthly are needed in order to accumulate $25,000 just after the last deposit 18 years from now? How much interest will the account have earned?

5. (*14 points*) Suppose you purchace a new computer for $1,500. You may finance the purchase by a loan for one year at an annual interest rate of 15% compounded monthly. What would be your monthly payment if the loan is amortized? How much interest would you pay?