Math 117 – Test 1
September 17, 2013 Name_____

Take your time and make sure you follow all instructions. In order to receive ANY credit, the formula used and any necessary work must be shown. ROUND your answers to the nearest DOLLAR or the nearest 0.01% where appropriate.

1. How much money would Andrew have in an account if he puts $8000 into the account that pays 6.75% simple interest for 4 years? [10 pts]

2. What simple interest rate would need to be charged for $2400 to grow to $2500 in 3 months? [10 pts]

3. Tim plans on buying a car in 5 years. How much would Tim need to deposit one time into an account that pays 8.2% interest compounded quarterly to have $25,000 in 5 years? [15 pts]

4. Determine the effective annual yield for an account that pays 7.8% interest compounded monthly. [10 pts]

5. Elisabeth wants to have $1,500,000 in 35 years. How much will she need to deposit each month in an account that pays 10.2% interest compounded monthly? How much interest will she earn over the 35 years? [20 pts]

6. A family buys a $280,000 house with a 30 year mortgage that requires 12% down and an interest rate of 4.2% compounded monthly with three points. [20 pts]

   a) What is the amount of the down payment?

   b) How much is needed to pay for the three points at the time of closing?

   c) What is the amount of the monthly payments?

7. Hannah decides to pay off a $3000 loan with semiannual payments of $807 for two years. Construct an Amortization Schedule that shows the four payments needed to pay off the debt if the interest rate is 6% compounded semiannually. (NOTE: The payment is given) [20 pts]

Payment #	**Interest**	**Principal**	**Balance**
1			
2			
3			
4			