Dr. ZABDAWI Engr. 1100

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**All interest rates are meant to be annual, unless specified otherwise.**

**Show Your Work**

**For money, carry your computations to the nearest Penny. For Interest Rates give your answer in percent with 2 decimal points of accuracy.**

1. Find the total amount of money with the accrued interest, if $800.00 is invested at 3.5% **simple interest** rate for 4 years.
2. Find the total amount of money with the accrued interest, if $2500.00 is invested at 2.5% interest rate compounded daily for 4.5 years.
3. At what interest rate should money be invested for it to double in 10 years, it were compounded quarterly?
4. How long should you wait for you money to triple, if it were invested at 3.5% interest rate and compounded monthly?
5. What would your monthly payment be, if you took a loan of $200,000.00 (for 30 years) to buy a house with an interest of 4.75%.
6. Use the ordinary annuity equation to find out how much you would have, if you deposit $350.00 every quarter for 18 years at 3.5% interest rate?
7. Suppose you were trying to save money to buy a new machine for your shop. How much money do you need to deposit every month in an account that pays 3.5% interest rate, such that you will have $50,000.00 on you in 10 years?
8. Which is a better bank for investment? Answer the problem by finding the APY for each bank.

Bank A: 4.5% where the compounding is quarterly.

Bank B: 4.3% where the compounding is monthly.

Bank C: 4.0% where the compounding is continuous.