1. Complete the tables and answer the questions. Just type the answers into the essay box so far for example:
2. Table Factor X, future value $x

Present Value Rate Compounding Frequency

1. $5,000 12% Annual
2. $5,000 12% Semiannual
3. $5,000 12% Quarterly
4. $5,000 12% Monthly

Table Factor Future Value

1. Cindy has decided to retire in 24 years. She has $30,000 available today and wants to invest the money to supplement her pension plan.
2. Assume Cindy wants to accumulate $150,000 by her retirement date. Will she achieve her goal if she invests $30,000 today and earns 6%? Please show your calculations supporting your yes/no answer.
3. If Cindy invests a total of $30,000 through a series of 24 equal annual installments at the end of the year instead of a single amount, would Cindy accumulate the desired $100,000 at the 6% annual interest? The first investment would be made one year from today. Please show your calculations to support your answer.
4. Rusty Smith plans to choose one of three investments. Investment (A) pays $2,500 at the end of each year for 3 years. Investment (B) pays $8,500 at the end of 5 years. Investment (C) pays $1,000 at the end of each year for 4 years and pays $4,000 at the end of the 5th year. Rusty requires a rate of return of 7% on each of these investments.
5. What is the present value of investment A?
6. What is the present value of investment B?
7. What is the present value of investment C?
8. You have decided to purchase a boat. You have found a well-running boat that will cost you $29,500. You can finance your purchase through the dealer at an annual rate of 24% for 24 months. The dealer requires a down payment of $8,000.
9. What will be the amount of your monthly payments?
10. What will be the total amount paid to the dealer over the life of the loan?
11. What will be the total amount of interest paid?
12. You win $1,000,000 in the state lottery. You have a choice to take $50,000 a year for 20 years or $560,000 now. You may assume some additional factors if you wish. Which choice would you take and why? What other factors need to be considered in addition to the time value of money?   
      
    6.. Using time value of money calculations can help a company or individual plan for future needs. What types of future situations will you, as a college student, want to plan for now?  Explain with examples.