

Time value of money assignment

Business



Time Value of Money Project Show all your work! Name _____

1. If Mrs. Beach wanted to invest a lump sum of money today to have \$100,000 when she retired at 65 (she is 40 years old today) how much of a deposit would she have to make if the interest rate on the C. D. was 5%? a. What would Mrs. Beach have to deposit if she were to use high quality corporate bonds and earned an average rate of return of 7%. b. What would Mrs. Beach have to deposit if she were to use common stock and earned an average rate of return of 11%. c. What type of a problem is this? _____

2. If you had a payment that was due to you in 5 years for \$50,000 and you could earn a 5% rate of return, how much would you accept as payment today for this payment in the future? a. If your rate of return is 8%, how much would you accept as payment today? b. If your rate of return is 10%, how much would you accept as payment today? c. What type of a problem is this? _____

3. You want to save enough money to retire as a millionaire. If you could earn 10% with common stocks, how much would you have to set aside per year to have \$1,000,000 when you are 65? . If you were going to make a deposit monthly, how much would you have to set aside per month to have \$1,000,000 when you are 65? b. If you were able to earn 11%, how much would you have to set aside per month to have \$1,000,000 when you are 65? c. What type of a problem is this? _____

4. If you were going to buy your office from Mrs. Beach for \$500,000 with a 10% down payment, 15 years financing with a 6% interest rate, how much would your payments be each month? a. What would be the principal and interest payment on the first payment? b.

What would be the principal and interest payment on the twelfth payment?

c. What type of a problem is this? _____ 5. Same problem as above, but

assume that the loan was for 20 years? What is the new payment? a. What

would be the principal and interest payment on the first payment? b. What

would be the principal and interest payment on the twelfth payment? c.

What type of a problem is this? _____ 6. You want to purchase a truck

for \$25,000 and you have \$3,450 to put down. How much will your

payments be if you financed the truck for 60 months at 6%? a.

How much would the payment be if rate of interest is 5% and you only

financed the truck for 48 months? b. Assuming that you would only finance

the truck for 4 years, how much would you need to put down to get your

payment to \$450.00? c. What type of a problem is this? _____ 7. You

have \$350.00 per month to spend on a car payment. If your credit union

charged 7.5% interest on a used car, how much car can you purchase if you

will only finance for 4 years? _____ 8. If you want to purchase a home.

You have \$15,000 to put down. All you can afford is \$1,500.00 per month

and you do not want to finance for more than 15 years @ 6% interest, (your

taxes will be \$85.00 per month and insurance \$200.00 a month), what is

the amount you can pay for your home? (Show all your work) 9. You want to

purchase a business with the following cash flows. How much would you pay

for this business today assuming you needed a 14% return to make this

deal? a. Year 2011 \$150,000 b. Year 2012 \$175,000 c. Year 2013 \$225,000

d. Year 2014 \$275,000 10. How much would you pay for this business today

assuming you needed a 18% return to make this deal? What type of a

problem is this? _____ tm