

1. Suppose you can buy an investment that promises to pay you \$2500 for 10 years with the first year's payment being made today. If your required interest rate is 10%, what is the most you would be willing to pay for the investment? (Answer: \$16,897.56)
2. Suppose you can buy an investment that promises to pay you \$2500 for 10 years with the first to be received five years from now. If your required interest rate is 10%, what is the most you would be willing to pay for the investment? (Answer: \$10,490.05)
3. If you make 12 annual deposits of \$3,000 in an account that pays 12% per year (annual compounding) with the first deposit being made today, what will be the value of the investment 12 years from now? (Answer: \$81,087.32)
4. If you make 12 annual deposits of \$3,000 in an account that pays 12% per year (annual compounding) with the first deposit being made today, what will be the value of the investment 20 years from now? (Answer: \$200,796.24)
5. Suppose you can buy an investment that promises to pay you \$1500 per year for 5 years and then pay you \$1000 in the 6th year. Your required rate of interest on this investment is 12%. What would you be willing to pay for this investment? (Answer: \$5,913.79)
6. Consider the following loan conditions:

Amount borrowed:	\$500,000
Time	5 years
Interest Rate	9.75% stated (nominal) annual rate
Balloon Payment	\$300,000 (Maximum)

Answer the following questions:

- a. What is the total dollar amount of interest you will pay on this loan if you carry it throughout the entire 20-year term? (Answer: \$199,740.92)
 - b. Suppose you increase your monthly payment by \$500 beginning with the first payment. What is the total dollar amount of interest under these conditions? (Answer: \$691,277.14)
7. Consider the following loan:

Stated annual rate	7.5%
Loan amount	\$25,000
Payment frequency	Monthly
Loan term	5 years
Balloon payment	0

For the 48th payment on this loan, what is the dollar amount of the interest portion of the payment? (Answer: \$38.98)