

Mid-Term Exam

1. Calculate the present value of an investment given the following information: (a) Years: 20, (b) Rate: 10%, and (c) Future Value: \$20,000.
2. Calculate the future value of an investment given the following information: (a) Years: 10, (b) Rate: 5%, and (c) Present Value: \$10,000.
3. Calculate the rate of return on an investment given the following information: (a) Years: 25, (b) Present Value: \$50,000, (c) Future Value: \$400,000.
4. Calculate the number of years on an investment given the following information: (a) Present Value: \$32,000, (b) Future Value: \$165,000, and Rate: 12%.
5. Calculate the present value of an annuity due given the following information: (a) Years: 10, (b) Payment: \$15,000, and Rate: 15%.
6. Calculate the future value of an annuity given the following information: (a) Years: 25, (b) Payments: \$25,000, and (c) Rate: 4%.
7. Calculate the rate of return for the following annuity: (a) Present Value: \$24,000, (b) Number of Years: 10, Payments: \$2,600.
8. Calculate the present value of an ordinary annuity with the following characteristics: (a) Payment: \$10,000, (b) Number of Years: 10, and (c) Rate: 10%.
9. Calculate the current price of a bond that has the following characteristic: (a) Coupon: \$85, (b) Yield to Maturity: 5%, and Number of Years: 10.
10. Calculate the current price of a bond that pays semi-annual coupon payments and has the following characteristics: (a) Number of Years until maturity: 20, (b) Annual Coupon Rate: 4%, and (c) Yield to Maturity: 5%.
11. Is the bond from problem 10 selling at a (a) premium to par, (b) discount to par, or (c) at par value?
12. Calculate the yield to maturity for a bond that has the following characteristics: (a) Coupon: \$50, (b) Price: \$1,080, and (c) Years until Maturity: 20.
13. Calculate the price that you would be willing to pay for a 'no growth' stock that has the following characteristics: (a) Annual Dividend: \$2.50 and (b) Investor's required rate of return: 10%.
14. Calculate the price that you would be willing to pay for a 'constant growth' stock that has the following characteristics: (a) Annual Dividend: \$2.50, (b) Constant Growth Rate: 8%, and (c) Investor's required rate of return: 10%.
15. Calculate the price that you would be willing to pay for a 'non-constant growth' stock that has the following characteristics: (a) Non-Constant Growth Rate: 25% for 3 years, (b) Constant Growth Rate: 7%, (c) Last Dividend: \$4.00, and (d) Investor's Required Rate of Return: 14%.
16. Calculate the price that you would be willing to pay for the following 'non-constant growth' stock that has the following characteristics: (a) Non-Constant Growth Rate: -10% for 3 years, (b) Constant Growth Rate: 10%, (c) Last Dividend: \$3.00, and (d) Investor's Required Rate of Return: 15%.
17. Calculate the price that you would be willing to pay for a 'constant growth stock': (a) Next Year The Company will pay an Annual Dividend: \$2.50, (b) Constant Growth Rate: 8%, and (c) Investor's required rate of return: 10%.
18. Calculate the dividend yield on a stock with the following information: (a) Growth Rate: 10%, (b) Price: \$40.00, and (c) Dividend: \$3.00.
19. Calculate the current yield on the following bond: (a) Price: \$1,120, (b) Market Rate of Interest: 5%, and (c) Coupon Rate: 7%.