

Fundamentals of Finance - FINC 150: Practice Problems Chapter 5

- 1) Today, you are purchasing a 20-year, 6 percent annuity at a cost of \$48,350. The annuity will pay annual payments starting one year from today. What is the amount of each payment? 1) _____
A) \$4,511.08 B) \$4,013.20 C) \$4,215.37 D) \$5,208.19
- 2) McClary Tires plans to save \$20,000, \$25,000, \$27,500, and \$30,000 at the end of each year for Years 1 to 4, respectively. If it earns 3.3 percent on its savings, how much will the firm have saved at the end of Year 4? 2) _____
A) \$107,130.78 B) \$107,525.40 C) \$108,392.69 D) \$111,860.57
- 3) How much money does Suzie need to have in her retirement savings account today if she wishes to withdraw \$42,000 a year for 25 years? She expects to earn an average rate of return of 9.75 percent. 3) _____
A) \$401,533.33 B) \$426,580.50 C) \$385,160.98 D) \$388,683.83
- 4) Postal Express is considering the purchase of a new sorting machine. The sales quote consists of quarterly payments of \$37,200 for five years at 7.6 percent interest. What is the purchase price? 4) _____
A) \$621,380.92 B) \$614,184.40 C) \$836,267.35 D) \$687,418.22
- 5) Your grandfather started his own business 52 years ago. He opened an investment account at the end of his third month of business and contributed \$x. Every three months since then, he faithfully saved another \$x. His savings account has earned an average rate of 5.73 percent annually. Today, his account is valued at \$289,209.11. How much did your grandfather save every three months assuming he saved the same amount each time? 5) _____
A) \$284.02 B) \$262.25 C) \$331.09 D) \$226.78 E) \$328.67
- 6) Industrial Tools owes you \$38,600. This amount is seriously delinquent so you have offered to accept weekly payments for one year at an interest rate of 3 percent to settle this debt in full. What is the amount of each payment? 6) _____
A) \$818.11 B) \$753.71 C) \$829.90 D) \$599.04 E) \$609.18
- 7) Recently, you needed money and agreed to sell a car you had inherited at a price of \$55,000, to be paid in monthly payments of \$1,500 for 42 months. What interest rate did you charge for financing the sale? 7) _____
A) 8.33 percent B) 6.84 percent C) 7.78 percent D) 7.25 percent

- 8) Cromwell is acquiring some land for \$1,200,000 in exchange for semiannual payments of \$75,000 at an interest rate of 6.35 percent. How many years will it take Cromwell to pay for this purchase? 8) _____
 A) 11.00 years B) 10.47 years C) 11.80 years D) 11.35 years
- 9) You just received a loan offer from Friendly Loans. The company is offering you \$5,000 at 9.3 percent interest. The monthly payment is only \$100. If you accept this offer, how long will it take you to pay off the loan? 9) _____
 A) 6.33 years B) 5.29 years C) 6.80 years D) 5.84 years
- 10) What is the future value of \$25 a week for 40 years at 8.5 percent interest? Assume the first payment occurs at the end of this week. 10) _____
 A) \$414,361.08 B) \$335,221.18 C) \$350,003.14 D) \$441,710.03
- 11) Alexis plans to invest \$2,500 a year for 30 years starting at the end of this year. How much will this investment be worth at the end of the 30 years if she earns an average annual rate of return of 9.6 percent? 11) _____
 A) \$387,411.26 B) \$381,324.92 C) \$417,932.11 D) \$311,416.67
- 12) You plan to save \$200 a month for the next 24 years and hope to earn an average rate of return of 10.6 percent. How much more will you have at the end of the 24 years if you invest your money at the beginning rather than the end of each month? 12) _____
 A) \$2,317.82 B) \$2,707.27 C) \$1,911.29 D) \$2,238.87
- 13) What is the effective annual rate of 9.6 percent compounded semiannually? 13) _____
 A) 9.68 percent B) 9.92 percent C) 9.71 percent D) 9.83 percent
- 14) You want to buy a new sports coupe for \$84,600 and the finance office at the dealership has quoted you an APR of 7.1 percent, compounded monthly, for 72 months. How much interest will you pay over the life of the loan assuming you make all payments on a timely basis? 14) _____
 A) \$17,204 B) \$20,686 C) \$19,542 D) \$23,911 E) \$16,048
- 15) Today, you are borrowing money and must repay the lender one year from now with a lump-sum payment of \$12,800. How much money are you borrowing if the interest rate is 8.45 percent, compounded monthly? 15) _____
 A) \$10,550.00 B) \$10,762.14 C) \$11,802.67 D) \$11,766.32