

- 2) If \$6,543.21 is deposited into an account earning 7.6% compounded monthly and left there for 15 years, how much will the account be worth? How much interest will be earned?
- 3) If \$90 is deposited into an account at the end of each year for ten years at 12% compounded annually, how much will be in the account at the end of ten years? How much is actually deposited and how much interest is earned?
- 4) If \$5234.17 is deposited into an account at the end of each year for 13 years at 9.35% compounded annually, how much will be in the account at the end of the 13 years? How much interest is earned?
- 5) If \$3,400 is deposited in an account paying an annual interest rate of 7.25% compounded quarterly and left there for six years, how much will be in the account at the end of the six years? How much interest will be earned?
- 6) How much money must be deposited now into an account paying a rate of 9% compounded annually so that \$3000 can be withdrawn in 10 years?
- 7) What is the present value of an account paying 8% compounded monthly that will contain \$23,000 after 14 years?
- 8) Lucy has found an account that will guarantee her a return of 4% compounded monthly. She wants to give her newborn niece a gift for college on her seventeenth birthday. If Lucy plans to give her niece \$20,000, how much must she deposit today to have the money?
- 9) John works part-time and earns \$100 each week. He deposits his earnings at the end of each month in an account which pays 6.8% compounded monthly. If he does this consistently for three years, will he have enough to buy the \$15,000 car he's hoping to get? (Assume 4 weeks in a month.)
- 10) Terry wants to make equal payments at the end of each month in an account paying 11% interest compounded monthly to save \$5,000 in two years to buy a boat. What should her monthly deposits be?
- 11) How long would it take for \$12000 to double in value (be worth \$24,000) if it were invested in an account which pays 5.73% compounded semiannually?
- 12) If \$2600 is deposited in an account paying 9% compounded semiannually, how many years will it take for the money to double?
- 13) Fred and Kay plan to buy some land in the mountains. They need a down payment of \$35,000 but they only have \$25,000. They decide to invest the \$25,000 in an account paying 11% compounded daily. How long will they have to wait until they have enough for the down payment?
- 14) If you have \$800 to invest for two years, which is the better investment: 7.5% compounded annually or 7.3% compounded monthly?
- 15) Meg won \$100,000 on a game show that she will receive in five years, when she turns 18. How much will the game show have to deposit today into an account paying 8% compounded monthly, in order to have Meg's money in five years?
- 16) What is the present value of \$50 deposited each quarter into an account paying 7% compounded quarterly after 20 years?
- 17) If Karen deposits \$3000 every six months into an account paying 7% compounded semi-annually, how long will it take to have \$150,000 in the account?

- 18) George promised to pay his Dad back the \$1000 he owes him at the end of next year, which is 18 months from now. He wants to take the same amount out of his paycheck each month for that time period in order to save up the money. George has a savings account that pays $5\frac{1}{4}\%$ compounded monthly. How much should he deposit at the end of each month in order to have the money for his Dad on time?
- 19) What lump sum deposited today at 9.25% compounded semi-annually for 10 years would yield the same total amount as semi-annual payments of \$350 at the same rate for 10 years?
- 20) Working in the U.S., Anna sends \$200 at the end of every quarter to her family back home. They are secretly saving up the money to give to her so she can make a down payment on a car. If they deposit the funds at the end of each quarter in an account that earns 6.3% compounded quarterly, how long before they have the \$2200 they want to give to her?
- 21) Ed is 38 years old and settled into a job making about \$27,000 per year that he receives in equal payments at the end of each month. He decides it's time to begin putting 10% of each paycheck immediately into a retirement account which pays 6.7% compounded monthly. Alice, Ed's sister, is 22 years old. She decides to go ahead and start putting \$75 at the end of each month into the same retirement account, even though she isn't making much money at her job yet. If both continue doing the same until they retire at age 65, who will have more retirement money? Who will have deposited more?
- 22) Which is worth more after 10 years: \$5000 deposited into an account paying 4.5% interest compounded daily (365.) - OR - Deposits of \$135 at the end of each quarter into an account paying 8% quarterly.
- 23) After winning a sweepstakes, Laura is given the following options:
 Option 1: Receive \$100,000 now.
 Option 2: Receive \$3000 at the end of each quarter for the next 10 years.
 Laura finds that she can earn 5.4% compounded quarterly on any investments over the next ten years. If she doesn't need to spend any of the money, which option would be best for her? Why?
- 24) David deposits \$500 at the end of each quarter into an account paying 6.5% interest compounded quarterly for 7 years. He then changes his deposit to \$725 each quarter for 5 more years at the same rate. What will the amount on deposit be after the entire 12 years?
- 25) John deposited \$12,800 in an account paying 7.48% interest compounded quarterly for 5 years. After the fifth year he found a better deal, so he emptied that account and deposited the total amount in an account paying 9% interest compounded semiannually. If he then left it in the second account for the next 4 years, what would be the total value of his account at the end of that time?
- 26) Write a response to the given memo, justifying your response.

<p>To: J. Student From: R. Stewart, Management Re: Planning</p> <p>We need to plan for a company expansion targeted for 4 years from now. Please compare the two strategies listed below: (1) Invest \$125,000 at 8% compounded quarterly (2) Deposit \$2600 each month at 7.9% compounded monthly</p>	<h2 style="margin: 0;">MEMO</h2>
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- 27) Write a response to the given memo, justifying your response.