



**Amortization Schedules** In Exercises 7–10, use a spreadsheet. (See Example 3.)

7. You take out a home mortgage for \$238,000 for 30 years at 5%. Each month, you make the regular payment of \$1277.64 plus an additional \$60.
  - a. How much sooner do you pay off the mortgage?
  - b. How much do you save in interest?
  
8. You take out a home mortgage for \$260,000 for 30 years at 6%. Each month, you make the regular payment of \$1558.83 plus an additional \$100.
  - a. How much sooner do you pay off the mortgage?
  - b. How much do you save in interest?
  
9. You take out a home mortgage for \$275,000 for 25 years at 4%.
  - a. What is the least amount, to the nearest dollar, that you need to pay in addition to the regular payment to pay off the mortgage 5 years early?
  - b. Compare the total interest you pay for the 25-year mortgage to the total interest you pay when you pay off the 25-year mortgage 5 years early.
  
10. You take out a home mortgage for \$190,000 for 20 years at 5%.
  - a. What is the least amount, to the nearest dollar, that you need to pay in addition to the regular payment to pay off the mortgage 5 years early?
  - b. Compare the total interest you pay for the 20-year mortgage to the total interest you pay when you pay off the 20-year mortgage 5 years early.
  - c. Compare the total interest you pay for a 15-year mortgage for the same amount and at the same rate to the total interest you pay when you pay off the 20-year mortgage 5 years early.



**Balloon Mortgages** In Exercises 11 and 12, use a spreadsheet. (See Example 4.)

11. You take out a 5-year balloon mortgage for \$150,000. The monthly payment is equal to that of a 15-year mortgage with an annual percentage rate of 5%. Find the balloon payment and the total interest that you pay.
  
12. You take out a 7-year balloon mortgage for \$120,000. The monthly payment is equal to that of a 30-year mortgage with an annual percentage rate of 5.5%. Find the balloon payment and the total interest that you pay.