

**Section 4.4 Worksheet**  
**Mathematical Models in Consumer Credit**

Name \_\_\_\_\_

Use the APR table in your book as needed for this worksheet.

1. A business owner spent \$28,000 to upgrade his business showroom. He paid 15% as a down payment and financed the balance of the purchase with a 24-month fixed installment loan with an APR of 9.5%. Determine the finance charge that he will pay and his monthly payment.

2. A discount furniture store is allowing customers to finance their purchases by paying no money down and making 18 monthly installment payments at an APR of 12.5%. Determine the finance charge and monthly payments for a dining room suite that costs \$3,600.

3. A homeowner spent \$14,000 to make some improvements to his house. He paid 15% of the cost in cash and financed the balance with a 24-month installment loan with an APR of 8.00%. How much are his finance charges and his monthly payment?

4. Kara's unpaid balance on her credit card at the beginning of May is \$369.95. During May she makes a payment of \$75.00 and charges a new dress for \$62.50 and some shoes for \$52.25. Using the unpaid balance method, calculate her balance at the beginning of May.

5. On March 7, Jeremy had a balance due of \$337.64 on his VISA card. The transactions during the month were:

March 12: payment of \$185.00

March 23: charge gift \$26.30

The interest rate on the card is 1.3% per month. Using the average daily balance method, calculate his new balance due on April 7.

6. On January 5, the billing date, Vernell had a balance of \$1,385.75 on her credit card. The transactions in January were as follows:

January 10: payment of \$350.00

January 15: tuition charge of \$550.00

January 16: textbooks charge of \$326.50

a. Find the new balance on February 5 if the interest rate on her card is 1.4% per month using the average daily balance method.

b. Find the new balance on February 5 if the interest rate on her card is 1.4% per month using the unpaid balance method.

7. Noel financed a \$2250 computer with 24 monthly payments of \$98.50. Find the finance charge she paid and the APR she was charged.