

MONTGOMERY COUNTY COMMUNITY COLLEGE
MAT 106
Review #2

1. In 5 years the student population at MCCC increased from 6500 to 8250 (5 pts.)
Find the percent of increase.

2. An item including sales tax cost \$510. The sales tax is $6\frac{1}{2}\%$. What was the original cost of the item? (6 pts.)

3. Find simple interest for a 3-month loan of \$4570 at 8.5% per year. (8 pts.)

4. Susie paid \$4600 for living room furniture. She made a down payment of \$1000 and financed the balance on a 36-month fixed payment installment loan. The monthly payments are \$120.87. When making her 18th payment, she decides to pay the balance. (Use table on last page.)
 - a. Determine APR of the loan. (4 pts.)

 - b. How much interest will she save? (see last page) (8 pts.)

5. If \$3770 is invested for 4 years at 9% compounded semi-annually, find: (8 pts.)
 - a. the amount. Use $a = p \left\{ 1 + \frac{r}{n} \right\}^{nt}$

 - b. the interest at the end of 4 years.

6. The balance on Andy's credit card amount on August 1, the billing date, was \$517.99. He had the following transactions during the month of August. The company's annual percentage rate is 16.8%.

August 8	restaurant charge	\$ 74.66
August 14	payment	\$190.00
August 20	clothes charge	\$130.93
August 25	food charge	\$ 80.66

- a. Find the average daily balance. (8 pts.)
- b. Find the finance charge that is due on September 1. (5 pts.)
- c. Find the balance due on September 1. (5 pts.)
7. A partial payment is made on the indicated date. Use the United States Rule to determine the balance due on the note at the date of maturity. Rate 13%. (8 pts.)

<u>Principle</u>	<u>Effective Date</u>	<u>Maturity Date</u>	<u>Partial Pay</u>	<u>Pay Date</u>
\$800	April 11	July 27	\$200	May 15

8. The Spendies are buying a house selling for \$290,000. The lending institution is requiring a minimum down payment of 10%. To obtain a 20-year mortgage at 8.5%, they must pay 2 pts. at the time of closing.
- a. Find the required down payment. (3 pts.)
- b. What is the amount of the mortgage? (3 pts.)
- c. What is the cost of the points? (3 pts.)

9. The Blums obtained a 30-year \$180,000 conventional mortgage at 8% on a house selling for \$235,000. The bank charged 1 pt. at the time of closing. Their monthly mortgage payment, including principal and interest, is \$1320.78.
- Determine the total amount the Blums will pay on their house. (6 pts.)
 - How much of the cost will be interest? (6 pts.)
 - How much of their first payment on the mortgage is applied to the principle? (6 pts.)
10. Bill's gross monthly income is \$5280. He has 14 remaining payments of \$250 per month on a car. (8 pts.)
- What is the maximum monthly payment the bank says Bill can afford?
 - He would like to get a 30 year \$140,000 mortgage at an 8.5% interest rate. If the taxes and fire insurance on the house are \$285 per month, does he qualify for loan?