TEST A **CHAPTER 13, YOUR MONEY AND YOUR MATH**

1. The Easy Loan Company charges 28% simple interest (annual) for a 2-year, $600 loan. Find:

_____ a. The total interest on this loan.

_____ b. The interest for three months.

_____ c. The total amount to be paid to the loan company at the end of two years.

2. A state has a 6% sales tax. Find:

_____ a. The sales tax on a microwave oven priced at $320.

_____ b. The total cost of this oven.

3. In a sale, a store offers a 20% discount on a freezer chest that is normally priced at $380.

_____ a. How much is the discount?

_____ b. What is the sale price of the freezer?

4. Here is a portion of a compound interest table to use in this problem.

	Amount (in $) to which $1 will accumulate in n periods under compound interest				
n	2%	4%	6%	8%	10%
1	1.0200	1.0400	1.0600	1.0800	1.1000
2	1.0404	1.0609	1.1236	1.1664	1.2100
3	1.0612	1.1249	1.1910	1.2597	1.3310
4	1.0824	1.1699	1.2625	1.3605	1.4641
5	1.1041	1.2167	1.3382	1.4693	1.6105
6	1.1262	1.2653	1.4185	1.5869	1.7716
7	1.1487	1.3159	1.5036	1.7138	1.9487
8	1.1717	1.3686	1.5938	1.8509	2.1436

Find the accumulated amount and the interest earned for:

_____ a. $100 at 8% compounded semiannually for 4 years.

_____ b. $100 at 8% compounded quarterly for $1\frac{1}{2}$ years.

5. A credit card holder is obligated to pay his balance in full if it is less than $10. Otherwise, the minimum payment is $10 or 5% of the balance, whichever is more.Suppose a customer received a statement listing a $292.75 balance:

_____ a. Find the minimum payment due.

_____ b. The finance charge is 1.5% per month. What will be the amount of this charge on the next monthly statement if the customer makes only the minimum payment?

6. Brenda Brown received a statement showing that she owed a balance of $210 to a department store where she had a revolving charge account. Brenda made a payment of $50 and charged an additional $35. If the store charges 1.5% on the unpaid balance, find:

_____ a. The finance charge on the next monthly statement.

_____ b. The new balance.

7. A car costing $8500 can be bought with $1500 down and 10% add-on interest to be paid in 48 equal installments.

_____ a. What is the total interest charge?

_____ b. What is the monthly payment?

Use the following table to solve problem 8.

True Annual Interest Rate for a 12-Payment Plan

	14%	$14\frac{1}{2}$ %	15%	$15\frac{1}{2}$ %	16%
Finance Charge per $100 of the amount financed	7.74	8.03	8.31	8.59	8.88

8. John Bishop borrows $300 and agrees to pay $27.20 per month for twelve months.

_____ a. What is the APR for this transaction?

_____ b. If John decided to pay off the balance of the loan after 5 months (with 7 payments remaining), use the Rule of 78 to find the amount of the interest refund.

_____ c. Find the amount needed to pay off the loan.

9. The Nakos family wants to buy a $70,000 house.

_____ a. If a bank is willing to loan them 75% of the price of the house, what would be the amount of the loan?

_____ b. What would be the down payment for this house?

_____ c. If they decide to obtain an FHA loan instead, what would be the minimum down payment? (Recall that FHA requires a down payment of 3% of the first $25,000 and 5% of the balance up to the maximum loan amount of $67,500.)

_____ d. What would be the maximum FHA loan they could get?

_____ 10. Refer to Problem 9. Suppose the Nakos family contracted for a 15-year mortgage at 12% with the bank that loaned them 75% of the price of the house. What is the monthly payment for principal and interest? (Use the following table.)

	Monthly Payment ($) for each $1000 Borrowed		
RATE	**10 years**	**15 years**	**20 years**
11%	13. 78	11.37	10.32
12%	14.35	12.00	11.01
13%	14.93	12.65	11.72

TEST B CHAPTER 13, YOUR MONEY AND YOUR MATH

1. A loan company charges 28% simple annual interest for a 2-year, $600 loan. The total interest on this loan is
   a. $168 b. $336 c. $936
   d. $1008 e. None of these

2. The total amount to be paid on a 2-year, $600 loan at 28% simple annual interest is
   a. $168 b. $336 c. $936
   d. $1008 e. None of these

3. What is the sales tax on a microwave oven priced at $320 if the sales tax rate is 6%?
   a. $18 b. $192 c. $19.20
   d. $339.20 e. None of these

4. The total cost of the microwave oven in Problem 3 is
   a. $406 b. $300.80 c. $360
   d. $339.20 e. None of these

5. A store offers a 20% discount on a freezer that is normally priced at $360. How much is the discount on this freezer?
   a. $72 b. $80 c. $304
   d. $280 e. None of these

6. The sale price of the freezer in Problem 5 is:
   a. $72 b. $80 c. $288
   d. $280 e. None of these

7. Here is a portion of a compound interest table to use in this problem.

Amount (in $) to which $1 will accumulate in n periods under compound interest

n	2%	4%	6%	8%	10%
1	1.0200	1.0400	1.0600	1.0800	1.1000
2	1.0404	1.0609	1.1236	1.1664	1.2100
3	1.0612	1.1249	1.1910	1.2597	1.3310
4	1.0824	1.1699	1.2625	1.3605	1.4641
5	1.1041	1.2167	1.3382	1.4693	1.6105
6	1.1262	1.2653	1.4185	1.5869	1.7716
7	1.1487	1.3159	1.5036	1.7138	1.9487
8	1.1717	1.3686	1.5938	1.8509	2.1436

If $100 is invested at 8% compounded semiannually for 4 years, the accumulated amount is:

a. $116.99 b. $136.86 c. $117.17
d. $126.53 e. None of these

8. A customer received a statement with a $292.75 balance. She was obligated to pay her balance in full if it was less than $10. Otherwise, the minimum payment was $10 or 5% of the balance, whichever is more. The minimum payment due was

a. $10 b. $292.75 c. $14.64
d. $282.75 e. None of these

9. If, in Problem 8, the finance charge is 1.5% per month on the unpaid balance, what will this charge be on the next statement if the customer makes only the minimum payment?

a. $4.17 b. $278 c. $290
d. $4.00 e. None of these

10. Brenda Brown received a statement with a $230 balance. She made a $50 payment and charged an additional $35. If the finance charge is 1.5% per month on the unpaid balance, the new balance on the next monthly statement will be

a. $2.70 b. $232.70 c. $195
d. $204.17 e. None of these

11. A car priced at $8500 can be bought with $1500 down and 10% add-on interest to be paid in 48 equal monthly installments. The total interest charge would be

a. $850 b. $1700 c. $700
d. $70 e. $2800

12. The monthly payment for the car of Problem 11 would be

a. $160.42 b. $215.83 c. $204.17
d. $194.79 e. None of these

13. John Bishop borrowed $300 and agreed to pay $27.20 per month for 12 months. After 5 months, John decided to pay off the balance (7 payments remaining). According to the Rule of 78, his interest refund would be

a. $15.40 b. $190.40 c. $65.28
d. $9.70 e. $9.48

14. In Problem 13, the amount needed to pay off the loan after 5 months is
    a. $190.40 b. $180.92 c. $175
    d. $126.45 e. None of these

15. The Turner family wants to buy a $70,000 house. If the bank will loan them 75% of the price of the house, what will the down payment be?
    a. $52,500 b. $4500 c. $17,500
    d. $15,000 e. None of these

16. What would be the down payment on an FHA loan on the house of Problem 15? (Recall that FHA requires a 3% down payment on the first $25,000 and 5% of the balance up to a $67,500 maximum.)
    a. $2000 b. $3000 c. $2500
    d. $7500 e. None of these

17. The maximum FHA loan that could be obtained to buy the house in Problems 15-16 is
    a. $60,000 b. $70,000 c. $67,000
    d. $62,500 e. None of these

The following table is to be used in Problems 18-20.

	Monthly Payment ($) for Each $1000 Borrowed		
Rate	10 years	15 years	20 years
11%	13. 78	11.37	10.32
12%	14.35	12.00	11.01
13%	14.93	12.65	11.72

18. A family contracted for a 15-year mortgage at 12% on a 75% loan to buy a $70,000 house. Their monthly payment for principal and interest was
    a. $720 b. $540 c. $495.45
    d. $630 e. None of these

19. The total interest charge on the house of Problem 18 amounts to
    a. $6300 b. $8400 c. $60,900
    d. $52,200 e. None of these

20. Suppose the term of the mortgage of Problem 18 was extended to 20 years. What would the difference in the monthly payment be?
    a. $51.98 b. $0.93 c. $93
    d. $11.88 e. None of these