

**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:  
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  - 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:  
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  - 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.  
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  - 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.

<b>Amount (in \$) to which \$1 will accumulate in n periods under compound interest</b>					
<b>n</b>	<b>2%</b>	<b>4%</b>	<b>6%</b>	<b>8%</b>	<b>10%</b>
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.  
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- b. \$100 at 8% compounded quarterly for  $1\frac{1}{2}$  years.  
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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:

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\_\_\_\_\_

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:

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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.

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a. What is the total interest charge?

b. What is the monthly payment?

Use the following table to solve problem 8.

<b>True Annual Interest Rate for a 12-Payment Plan</b>					
	14%	$14\frac{1}{2}\%$	15%	$15\frac{1}{2}\%$	16%
<b>Finance Charge</b> 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.**

<b>Monthly Payment (\$) for Each \$1000 Borrowed</b>			
<b>Rate</b>	<b>10 years</b>	<b>15 years</b>	<b>20 years</b>
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