

RETEACHING ♦ Using Credit Cards

CH. 8 REV. PACKET

Study this monthly credit card statement.

Your account number. _____

Charges and payments made by this date are included on this Statement.

The amount you can charge without making a payment.

Charges and payments made this month. Check these against your records.

The **Annual Percentage Rate (APR)** is the interest rate you pay.

The amount you owed at the end of last month.

The amount you now owe.

The minimum Payment you can make.

Your name		Your address		SUPER CHARGE Make check or money order payable to Super Charge . Payment must be made in U.S. dollars.	
1/15/90	123 456 789 123	303.67	35.00		
STATEMENT CLOSING DATE	ACCOUNT NUMBER	TOTAL NEW BALANCE	MINIMUM DUE THIS BILLING	AMOUNT ENCLOSED	
Return this portion of statement with payment. Our address on back must show in window of enclosed envelope.					
FOR QUESTIONS CONCERNING THIS STATEMENT SEE "INQUIRIES" ON REVERSE. DIRECT TELEPHONE INQUIRIES TO					
TRANSACTION OR POSTING DATE	TOTAL	CREDIT LINE AVAILABLE	SUPER CHARGE ACCOUNT NUMBER	PURCHASES ADVANCES AND DEBITS, PAYMENTS AND CREDITS (-)	800-556-9964
	1500	1015.87	123 456 789 123		REFERENCE NUMBER
12/20/89	RECORD CITY			14 95	876 541 642
12/21/89	JANET'S BOUTIQUE			64 29	726 348 761
12/21/89	THE JEAN STORE			36 70	923 456 781
12/22/89	PAYMENT - THANK YOU			- 135 70	CR
12/23/89	KIT'S TOYS			42 37	643 356 782
Lost/Stolen cards: If you know or think your Super Charge card is lost or stolen, call us immediately at 1-800-555-8888					
HOW WE ARRIVE AT YOUR FINANCE CHARGE		MONTHLY PERIODIC RATE (%)	NOMINAL ANNUAL PERCENTAGE RATE		
PURCHASES		1.650	1.980		
ACCOUNT SUMMARY					
	PREVIOUS BALANCE		(-) PAYMENTS AND CREDITS	(+) PURCHASES ADVANCES AND DEBITS	(+) FINANCE CHARGE
TOTAL PURCHASES	458	85	135 70	158 31	2 67
ADVANCES					
TOTAL	458	85	135 70	158 31	2 67
					(=) NEW BALANCE
					484 13
					PAYMENT DUE
					35 00
*See reverse side for balance computation method and other important information.		STATEMENT CLOSING DATE	NO. BILLING CYCLEDAYS	PAYMENT DUE DATE	PAST DUE - PAY IMMEDIATELY
		1/15/90	31	2/17/90	MINIMUM DUE THIS BILLING
					35 00

Use the monthly credit card statement above to answer the following questions.

What is:

- The account number? _____
- The statement closing date? _____
- The payment due date? _____
- The credit limit? _____
- The credit that is available? _____
- The finance charge? _____
- The Annual Percentage Rate (APR)? _____
- The previous balance? _____
- The new balance? _____
- The total of new purchases? _____
- Last month's payment? _____
- The minimum payment due? _____

RETEACHING ♦ Credit Finance Charges

The unpaid balance on Sam's account was \$900. There were no new charges this month. Find the finance charge.

The **unpaid balance** on a credit card statement is any of the last balance that was not paid.

For some credit cards, the finance rates *vary* for the unpaid balance, as shown:

$1\frac{1}{2}\%$ on first \$500

1% on unpaid balance above \$500

THINK: $1\frac{1}{2}\% = 0.015$;

$1\% = 0.01$

1. *Multiply* to find finance charge on first \$500. $0.015 \times \$500 = \7.50
2. *Subtract* to find amount of unpaid balance over \$500. $\$900 - \$500 = \$400$
3. *Multiply* to find finance charge for \$400. $0.01 \times \$400 = \4.00
4. *Add* \$7.50 to \$4.00 to find the total.

The total finance charge is **\$11.50**.

Use the variable finance rates shown above to do Exercises 1–36.
Find the total finance charge on the given unpaid balance to the nearest cent. Remember to estimate whenever you use your calculator.

1. \$600.00 _____
2. \$850.00 _____
3. \$987.00 _____
4. \$1,028.00 _____
5. \$1,046.75 _____
6. \$1,452.50 _____
7. \$468.55 _____
8. \$1,296.48 _____
9. \$2,061.08 _____

Complete the table. (**Keep in mind:** The new balance is the sum of the unpaid balance and the finance charge.)

Last balance	Payments	New charges	Unpaid balance	Finance charge	New balance
\$450.00	\$0	\$250.00	10.	11.	12.
\$325.00	\$100.00	\$0	13.	14.	15.
\$960.00	\$250.00	\$165.00	16.	17.	18.
\$385.00	\$0	\$463.00	19.	20.	21.
\$525.60	\$350.00	\$215.00	22.	23.	24.
\$862.75	\$0	\$465.20	25.	26.	27.
\$1,062.00	\$500.00	\$0	28.	29.	30.
\$628.84	\$300.00	\$164.86	31.	32.	33.
\$1,462.47	\$462.47	\$295.50	34.	35.	36.

RETEACHING ♦ Overdraft Checking

This table shows the record of Susan Abel's overdraft checking account for the month of May. The APR is 18%.

Dates	Balance		Number of days		Sum of the daily balances
May 1–15	\$315.75	×	15	=	\$4,736.25
May 16–22	\$417.80	×	7	=	\$2,924.60
May 23–31	\$406.15	×	8	=	\$3,249.20
Total			31		?

Find the interest and the new balance for Susan's account.

- Add to find the sum of the daily balances for May.

$$\$4,736.25 + \$2,924.60 + \$3,249.20 = \$10,910.05$$
- Use the table on page 147 of your textbook to find the daily interest rate for an APR of 18%.
The APR is 0.04931%.
- Use this formula to find the interest.

$$\text{APR} \times \text{SUM OF DAILY BALANCES} = \text{INTEREST}$$

$$0.0004931 \times \$10,910.05 = \$5.3797456$$

THINK: 0.04931% = 0.0004931
- Use this formula to find the new balance.

$$\text{LAST BALANCE} + \text{INTEREST} = \text{NEW BALANCE}$$

$$\$406.15 + \$5.38 = \$411.53$$

The interest is **\$5.38**, and the new balance is **\$411.53**.

Find the interest and new balance for each account. Use the table on page 147 of your textbook to find the daily interest rate for the APR. Round the answer to the nearest cent.

- Jan. 1–Jan. 15 Balance \$539.14
Jan. 16–Jan. 23 Balance \$480.75
Jan. 24–Jan. 31 Balance \$319.50
The APR is 19%.
Interest _____ New Balance _____
- Sept. 1–Sept. 12 Balance \$215.35
Sept. 13–Sept. 20 Balance \$196.13
Sept. 21–Sept. 30 Balance \$238.50
The APR is 17%.
Interest _____ New Balance _____
- June 1–June 13 Balance \$745.15
June 14–June 21 Balance \$605.30
June 22–June 30 Balance \$517.65
The APR is 20%.
Interest _____ New Balance _____
- Oct. 1–Oct. 13 Balance \$1,088.15
Oct. 14–Oct. 20 Balance \$946.10
Oct. 21–Oct. 31 Balance \$1,230.05
The APR is 18%.
Interest _____ New Balance _____
- April 1 Balance \$631
April 7 Made \$275 payment
April 20 Balance changed to \$540
April 21–30 No more activity
The APR is 17%.
Interest _____ New Balance _____
- August 1 Balance \$90
August 8 Balance changed to \$256
August 16 Made \$150 payment
August 17–31 No more activity
The APR is 18%.
Interest _____ New Balance _____

RETEACHING ♦ Taking Out a Loan

Beth wants to get a \$5,000 home-improvement loan. Her bank gave her this payment table.

MONTHLY PAYMENT PER \$100 FINANCED			
Years	APR		
	$10\frac{1}{2}\%$	$11\frac{1}{2}\%$	$13\frac{1}{2}\%$
5	2.149	2.199	2.301
10	1.349	1.406	1.523
15	1.105	1.168	1.295

She decides to get a 15-y loan for $11\frac{1}{2}\%$. How much will she pay each month?
How much interest will she pay over the 15 y?

1. Divide to find the number of \$100 Beth wants to borrow. $\$5,000 \div \$100 = 50$
2. Use this formula and the table above to find the monthly payments.

$$\begin{aligned} &\text{NUMBER OF \$100 BORROWED} \times \\ &\text{MONTHLY PAYMENT PER \$100} = \\ &\text{MONTHLY PAYMENT} \\ &50 \times \$1.168 = \$58.40 \end{aligned}$$
3. Use this formula to find the total amount repaid.

$$\begin{aligned} &\text{NUMBER OF MONTHLY PAYMENTS} \times \\ &\text{AMOUNT OF MONTHLY PAYMENT} = \\ &\text{TOTAL AMOUNT REPAID} \\ &\text{THINK: } 1 \text{ y} = 12 \text{ mo;} \\ &\quad 15 \text{ y} = 15 \times 12 \text{ mo} = 180 \text{ mo} \\ &180 \times \$58.40 = \$10,512.00 \end{aligned}$$
4. Use this formula to find the interest paid over the 15 y.

$$\begin{aligned} &\text{TOTAL AMOUNT REPAID} - \\ &\text{AMOUNT BORROWED} = \text{INTEREST} \\ &\$10,512 - \$5,000 = \$5,512 \end{aligned}$$

Beth will pay **\$58.40** per mo. She will pay **\$5,512** interest over 15 years.

Complete the table. Round each amount to the nearest cent.
Remember to estimate whenever you use your calculator.

Amount	APR	Years	Monthly payment	Total amount repaid	Interest
\$6,000	$11\frac{1}{2}\%$	5	1.	2.	3.
\$8,000	$11\frac{1}{2}\%$	5	4.	5.	6.
\$10,000	$13\frac{1}{2}\%$	10	7.	8.	9.
\$9,500	$11\frac{1}{2}\%$	5	10.	11.	12.
\$16,250	$10\frac{1}{2}\%$	10	13.	14.	15.
\$4,825	$11\frac{1}{2}\%$	5	16.	17.	18.
\$15,550	$13\frac{1}{2}\%$	15	19.	20.	21.

RETEACHING ♦ Installment Buying

You can buy a \$75 camera on an installment plan by making a down payment of \$25 and paying \$5.50 a mo for 12 mo.

Find the installment price and the finance charge.

THINK: $\text{INSTALLMENT PRICE} = \text{MONTHLY PAYMENTS} + \text{DOWN PAYMENT}$

$\text{FINANCE CHARGE} = \text{INSTALLMENT PRICE} - \text{REGULAR PRICE}$

1. *Multiply* to find the total monthly payments. $12 \times \$5.50 = \mathbf{\$66.00}$
2. *Add* to find the installment price. $\$66.00 + \$25.00 = \mathbf{\$91.00}$
3. *Subtract* to find the finance charge. $\$91.00 - \$75.00 = \mathbf{\$16.00}$

The finance charge is **\$16**.

Complete the table.

Remember to estimate whenever you use your calculator.

Regular price	Down payment	Monthly payment	Number of payments	Installment price	Finance charge
\$80	\$0	\$11	9	1.	2.
\$95	\$0	\$18	6	3.	4.
\$120	\$0	\$15	9	5.	6.
\$158	\$20	\$25	6	7.	8.
\$215	\$30	\$22.50	9	9.	10.
\$456	\$50	\$35.50	12	11.	12.
\$622.50	\$100	\$90.50	6	13.	14.
\$495.95	\$75	\$52.25	9	15.	16.
\$898.95	\$150	\$71.75	12	17.	18.
\$956.40	\$120	\$150.20	6	19.	20.

Solve.

21. You buy a cassette player on the installment plan. It usually sells for \$120. You make a \$20 down payment and pay \$18.50 per mo for 6 mo. How much will the cassette player cost? How much more will you pay by using the installment plan?

22. You buy a computer on the installment plan. It usually sells for \$895. You make a \$200 down payment and pay \$62.75 per mo for 12 mo. How much will you pay using the installment plan? How much would you save if you did not use the installment plan?

PRACTICE ♦ Decision Making: Using Credit Wisely

8.7

Janice needed to borrow \$3,600. She listed the features of three credit plans to help her decide.

Unsecured Loan	<p>The APR is 13.5%. The loan must be paid off in no more than 15 mo. The loan cannot be paid off any faster.</p> <table border="1"> <tr> <td>13.5%</td><td>Monthly payment per \$100</td></tr> <tr> <td>15 mo</td><td>\$9.235</td></tr> </table>	13.5%	Monthly payment per \$100	15 mo	\$9.235
13.5%	Monthly payment per \$100				
15 mo	\$9.235				
Home Equity Loan	<p>The minimum term of the loan is 5 y (60 mo). The APR is 15.5%. The interest paid is tax deductible. The loan cannot be paid off any faster.</p> <table border="1"> <tr> <td>15.5%</td><td>Monthly payment per \$100</td></tr> <tr> <td>5 y</td><td>\$2.405</td></tr> </table>	15.5%	Monthly payment per \$100	5 y	\$2.405
15.5%	Monthly payment per \$100				
5 y	\$2.405				
Credit Card	<p>Finance charge: 1.5% of the unpaid balance each month Minimum payment: \$175.83 monthly The APR is 15.75%. I plan to make the minimum monthly payment. I will not charge anything else on this card. It will take me 24 mo to pay off the loan. The interest will be \$619.92.</p>				

Complete the table to compare the 3 credit plans.

Factor	Unsecured loan	Home equity loan	Credit card
APR	1.	15.5%	2.
Monthly payment	3.	4.	\$175.83
Number of payments	15	5.	6.
Interest	7.	\$1,594.80	8.
Other factors	9.	10.	Payments not fixed

Which credit plan would Janice choose if the only factor were:

11. Least amount of interest?

12. Lowest monthly payment?

Solve.

13. How much would Janice save in interest by choosing the credit card loan instead of the unsecured loan?

14. How much would Janice save in interest by choosing the unsecured loan instead of the home equity loan?
