Finance Charge: Unpaid-Balance Method

Vocab:

interest on the balance

Unpaid-Balance Method - the interest charged is based on the unpaid part of your bill.

pg 288

Unpaid Bal = Prev Bal − (Payments Credits)

Fin. charge = % · (Unpaid Bal)

New Bal = Unpaid Bal + Fin. charge + New Purch.

LESSON 7.2

EXAMPLE 1

See **Figure 7.2** for the summary portion of Lucille Sherman's charge account statement. She had a previous balance of $132.40, made a $40.00 payment and purchased an item for $79.55. The monthly finance charge is computed at 1.5% of the unpaid balance. Determine the **(a)** unpaid balance, **(b)** finance charge, and **(c)** new balance.

Charge Account Statement

88	PAYMENT / Thank You		40.00		
Billing Date: 2/16					
Previous Balance	**Payments & Credits**	**Unpaid Balance**	**Finance Charge**	**New Purchases**	**New Balance**
$132.40	$40.00	a.	b.	$79.55	c.

a) U.B. = 132.40 − 40 = $92.40

b) F.C. = 0.015(92.40) = $1.39

c) NB = 92.40 + 1.39 + 79.55 = $173.34

LESSON 7.2

Complete problems 1 and 2 by finding (a) the unpaid balance, (b) the finance charge, and (c) the new balance. (The periodic rate is 1.5%.) Check your answers in the back of the book.

	(Previous Balance	− Payments & Credits	= Unpaid Balance)	+ Finance Charge	+ New Purchases	= New Balance
1.	$600	$100	a. $500	b. $7.50	+ $70	c. $577.50
2.	220	150	a. $70	b. $1.05	95	c. $166.05

b) $0.015(500) = 7.50$

b) $0.015(70) = \$1.05$

LESSON 7.2

EXAMPLE 2 Algebra

Roy Nelson's charge account uses the unpaid-balance method to compute the finance charge at a monthly periodic rate of 1.75%. During the month, he charged \$156.89, made a \$200.00 payment, and had a \$9.90 finance charge. Find his **(a)** unpaid balance, **(b)** previous balance, and **(c)** new balance.

a) $FC = r \cdot UB$

$\frac{9.90}{0.0175} = \frac{0.0175(UB)}{0.0175}$

$UB = 565.71$

$UB = PB - (Pay_{end})$

b) $565.71 = PB - 200$

$+200 \quad +200$

$PB = 765.71$

c) $NB = 565.71 + 9.90 + 156.89$

$= 732.50$

LESSON 7.2

Complete the problems. Check your answers in the back of the book.

3. Omar Tariq has a credit card that uses the unpaid-balance method to compute the finance charge. His monthly periodic rate is 2.4%. During this past billing cycle, he charged a total of $256.28 and made payments totaling $350.00. If he has a finance charge of $18.28, find his **(a)** unpaid balance, **(b)** previous balance, and **(c)** new balance.

a) $F.C. = \%_0 \cdot UB$

$18.28 = 0.024(UB)$

$UB = \frac{18.28}{0.024} = 761.67$

b) $UB = PB - Pay$

$761.67 = PB - 350$

$+350 \quad +350$

$1111.67 = PB$

c) $NB = UB + FC + NP$

$NB = 761.67 + 18.28 + 256.28$

$= 1036.23$

Finance Charge: Average-Daily-Balance Method

Vocab:

Average-Daily-Balance Method - a % of your balance at the end of the day averaged for the month.

LESSON 7.3

EXAMPLE 1

Sierra Warren has a charge account with a company that computes the finance charge using the average daily balance–new purchases included. She checks to be sure the average daily balance is correct. See **Figure 7.3** on p. 292 for part of her statement.

Reference	Posting Date	Description	Purchases & Advances	Payments & Credits
1-32734	12/10	Housewares	$25.85	
2-44998	12/20	PAYMENT		$70.00

Billing Period	Previous Balance	Periodic Rate	Average Daily Balance	Finance Charge
12/1–12/31	$125.80	2%	$117.05	$2.34

Payments & Credits	Purchases & Advances	New Balance	Minimum Payment	Payment Due
$70.00	$25.85	$83.99	$20.00	1/21

Dates	Payment	Purchases	End-of-Day Balance	×	Number of Days	Sum of Balances
12/1–12/9			$125.80	×	9	$1,132.20
12/10		$25.85	151.65	×	1	151.65
12/11–12/19			151.65	×	9	1364.85
12/20	$70.00		81.65	×	1	81.65
12/21–12/31			81.65	×	11	898.15
				TOTAL	31	3628.56

$$\frac{3628.56}{31} = 117.05$$

LESSON 7.3

EXAMPLE 2

Sierra Warren (from **Example 1**) checks the finance charge and the new balance. The finance charge is computed at 2% of the average daily balance. What is her new balance?

F.C. = 0.02(117.05) = $2.34

N.B. = $83.99

LESSON 7.3

Find the average daily balance including new purchases. Check your answers in the back of the book.

	Dates	Payment	Purchase	End-of-Day Balance	×	Number of Days	Sum of Balances
1.	9/9–9/15			$500	×	7	a. $3500
2.	9/16		$100	600	×	1	a. $600
3.	9/17–9/21			a. $600	×	5	b. $3000
4.	9/22	$150		a. $450	×	b. 1	c. $450
5.	9/23–10/8			a. $450	×	b. 16	c. $7200
6.					TOTAL	a. 30	b. $14,750
	Sum of Daily Balances	÷	Number of Days		=	Average Daily Balance	
7.	a. $14750	÷	b. 30		=	c. $491.67	

Complete the problems by using the information in Concept Check Problems 1–7 to find the following if the finance charge is computed at 1.5% of the average daily balance. Check your answers in the back of the book.

8. The finance charge.

$FC = 0.015(491.67)$

$= \$7.38$

9. The unpaid balance.

$UB = \$500 - 150 = \$350$

10. The new balance.

$NB = 350 + 7.38 + 100 = \$457.38$