

## Credit Finance Charges

On your credit card statement, the **finance charge** is the amount you pay if the last balance has not been paid in full. The **unpaid balance** is any of the last balance that was not paid. The **new balance** is the amount you now owe.

$$\text{New Balance} = \text{Unpaid Balance} + \text{Finance Charge} + \text{New Charges}$$

**Example 1:** Last month's balance was \$285.00, of which \$140.00 has been paid. Your new charges this month totaled \$184.85. Your credit card company charges you 1.65% of the unpaid balance as a finance charge. Find the unpaid balance, the finance charge, and the new balance.

**Step 1** Subtract to find the unpaid balance.  $\$285 - \$140 = \$145$   
The unpaid balance is \$145.

**Step 2** Multiply to find the finance charge.  
**THINK:**  $1.65\% = 0.0165$   $0.0165 \times \$145 = \$2.3925$   
The finance charge is \$2.39.

**Step 3** Add to find the new balance.  $\$145 + \$2.39 + \$184.85 = \$332.24$   
The new balance is \$332.24.

Some credit cards have variable finance rates as shown below.

$1\frac{1}{2}\%$  on the first \$500 of unpaid balance

1% on the unpaid balance above \$500

**Example 2:** The unpaid balance on Myra's account was \$1,250. There were no new charges this month. Find the finance charge and the new balance.

**Step 1** Multiply to find the finance charge on the first \$500.  
**THINK:**  $1\frac{1}{2}\% = 0.015$   $0.015 \times \$500 = \$7.50$

**Step 2** Multiply to find the finance charge on the amount over \$500.  
**THINK:**  $\$1,250 - \$500 = \$750$  and  $1\% = 0.01$   $0.01 \times \$750 = \$7.50$

**Step 3** Add to find the total finance charge.  $\$7.50 + \$7.50 = \$15.00$   
The total finance charge is \$15.00

**Step 4** Add to find the new balance.  $\$1,250 + \$15.00 = \$1,265$   
The new balance is \$1,265.

**Think About It**

1. What are some of the advantages and disadvantages of having a credit card?

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**Practice**

*Remember to estimate whenever you use your calculator.*

**Find the unpaid balance, the finance charge, and the new balance to the nearest cent.**

- |  |   |  |
|--|---|--|
| <p>1. Last balance: \$80.45<br/>         Payments: \$0<br/>         Finance rate: 1%<br/>         New charges: \$99.85<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p>                               | <p>2. Last balance: \$40.55<br/>         Payments: \$0<br/>         Finance rate: 1.3%<br/>         New charges: \$88.75<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p>                                | <p>3. Last balance: \$143.50<br/>         Payments: \$100.00<br/>         Finance rate: 1%<br/>         New charges: \$0<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p>                               |
| <p>4. Last balance: \$89.77<br/>         Payments: \$19.00<br/>         Finance rate: 1.5%<br/>         New charges: \$0<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p>                             | <p>5. Last balance: \$530.85<br/>         Payments: \$125.00<br/>         Finance rate: 1.2%<br/>         New charges: \$0<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p>                              | <p>6. Last balance: \$509.65<br/>         Payments: \$350.00<br/>         Finance rate: <math>1\frac{1}{4}\%</math><br/>         New charges: \$199.89<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p> |
| <p>7. Last balance: \$90.85<br/>         Payments: \$55.00<br/>         Finance rate: <math>1\frac{1}{2}\%</math><br/>         New charges: \$345.90<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p> | <p>8. Last balance: \$1,025.63<br/>         Payments: \$750.00<br/>         Finance rate: <math>\frac{3}{4}\%</math><br/>         New charges: \$836.25<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p> | <p>9. Last balance: \$261.65<br/>         Payments: \$43.30<br/>         Finance rate: 1.5%<br/>         New charges: \$35.49<br/>         Unpaid balance: _____<br/>         Finance charge: _____<br/>         New balance: _____</p>                          |

Name \_\_\_\_\_ Date \_\_\_\_\_

Use the variable rates in Example 2 on page 88. Find the total finance charge on the given unpaid balance to the nearest cent.

10. \$545.00 \_\_\_\_\_

11. \$718.00 \_\_\_\_\_

12. \$1,465 \_\_\_\_\_

13. \$678.52 \_\_\_\_\_

14. \$2,045.67 \_\_\_\_\_

Use the variable rates in Example 2. Find the unpaid balance, the finance charge, and the new balance to the nearest cent.

Last balance	Payments	New Charges	Unpaid Balance	Finance Charge	New Balance
\$234.00	\$0	\$345.00	15. _____;	_____;	_____
\$1,089.00	\$500.00	\$0	16. _____;	_____;	_____
\$2,534.58	\$750.58	\$234.00	17. _____;	_____;	_____
\$345.68	\$35.89	\$38.34	18. _____;	_____;	_____

**Extension**

**Minimum Payments**

Some credit card companies require a minimum payment on the new balance. Your new balance is \$250. The minimum payment is 15% of the new balance. What is the minimum payment?

Multiply the new balance by 0.15.

$$0.15 \times \$250 = \$37.50 \text{ minimum payment}$$

**Find the minimum payment.**

1. The minimum payment is 12% of the new balance. The new balance is \$456. \_\_\_\_\_

2. The minimum payment is 15% of the new balance or \$25, whichever is greater.

The new balance is \$158. \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

## Practice

### Credit Finance Charges

Find the unpaid balance, the finance charge, and the new balance. Round each amount to the nearest cent. Remember to estimate whenever you use your calculator.

1. Last balance: \$105.20

Payments: \$0

Finance rate:  $1\frac{1}{4}\%$

New charges: \$42.06

Unpaid balance: \_\_\_\_\_

Finance charge: \_\_\_\_\_

New balance: \_\_\_\_\_

2. Last balance: \$96.80

Payments: \$0

Finance rate:  $1\frac{1}{2}\%$

New charges: \$113.40

Unpaid balance: \_\_\_\_\_

Finance charge: \_\_\_\_\_

New balance: \_\_\_\_\_

3. Last balance: \$72.89

Payments: \$0

Finance rate: 1.4%

New charges: \$36.99

Unpaid balance: \_\_\_\_\_

Finance charge: \_\_\_\_\_

New balance: \_\_\_\_\_

4. Last balance: \$198.60

Payments: \$65.40

Finance rate: 1.2%

New charges: \$0

Unpaid balance: \_\_\_\_\_

Finance charge: \_\_\_\_\_

New balance: \_\_\_\_\_

5. Last balance: \$902.03

Payments: \$780.00

Finance rate:  $1\frac{3}{4}\%$

New charges: \$211.45

Unpaid balance: \_\_\_\_\_

Finance charge: \_\_\_\_\_

New balance: \_\_\_\_\_

6. Last balance: \$399.38

Payments: \$27.50

Finance rate: 1.2%

New charges: \$514.80

Unpaid balance: \_\_\_\_\_

Finance charge: \_\_\_\_\_

New balance: \_\_\_\_\_

Use the following variable rates to find the total finance charge on the given unpaid balance. Round each amount to the nearest cent.

Variable Rates: 1.25% on the first \$500 of the unpaid balance  
0.75% on the unpaid balance above \$500

7. \$389.60 \_\_\_\_\_

8. \$998.45 \_\_\_\_\_

9. \$1,604.08 \_\_\_\_\_

10. \$729.61 \_\_\_\_\_

11. \$3,462.48 \_\_\_\_\_

10. 0.03
11. 0.05
12. 1.56
13. 0.01
14. 0.015
15. 0.0125
16. 0.000405
17. 0.0006308
18. 0.0005506
19. \$36
20. \$28
21. \$54.60
22. \$501
23. \$245
24. \$437
25. \$590.92
26. \$635.54
27. \$30.77
28. \$15.01
29. \$9.96
30. \$495.09
31. \$348.08
32. \$212.76
33. \$352.71
34. \$840.42
35. \$30.35
36. \$4.46
37. \$0.42
38. \$0.28
39. \$68.67
40. \$141.57
41. \$76.23
42. \$135.49
43. \$0.38
44. \$0.82
45. \$0.02
46. \$0.00

### Page 86–87

#### Think About It

1. Check that all amounts match and that there are no charges on the statement that you did not make. Keep card receipts!

#### Practice

1. 9999
2. January 3, 2013
3. 4:25 PM
4. \$62.32
5. \$4.029
6. 15.469 gal
7. Feb. 28, 2013
8. 123 789 456 2
9. \$158.88
10. \$79.39
11. \$62.05
12. \$1.39
13. \$142.93
14. \$75.00
15. 21%
16. 18%
17. \$9.00
18. \$20.45

### Pages 89–91

#### Think About It

1. Examples of advantages: being able to pay for purchases once monthly; having a record of purchases. Examples of disadvantages: It is easy to forget that charging is spending money. It may be easy to exceed what you can afford to repay monthly. Also, there are finance charges when you don't pay your balance in full.

#### Practice

1. \$80.45; \$0.80; \$181.10
2. \$40.55; \$0.53; \$129.83
3. \$43.50; \$0.44; \$43.94
4. \$70.77; \$1.06; \$71.83
5. \$405.85; \$4.87; \$410.72
6. \$159.65; \$2.00; \$361.54
7. \$35.85; \$0.54; \$382.29
8. \$275.63; \$2.07; \$1,113.95
9. \$218.35; \$3.28; \$257.12
10. \$7.95
11. \$9.68
12. \$17.15
13. \$9.29
14. \$22.96
15. \$234.00; \$3.51; \$582.51
16. \$589.00; \$8.39; \$597.39
17. \$1,784.00; \$20.34; \$2,038.34
18. \$309.79; \$4.65; \$352.78

#### Extension

1. \$54.72
2. \$25

#### Practice

1. Unpaid balance: \$105.20  
Finance charge: \$1.32  
New balance: \$148.58
2. Unpaid balance: \$96.80  
Finance charge: \$1.45  
New balance: \$211.65
3. Unpaid balance: \$72.89  
Finance charge: \$1.02  
New balance: \$110.90
4. Unpaid balance: \$133.20  
Finance charge: \$1.60  
New balance: \$134.80
5. Unpaid balance: \$122.03  
Finance charge: \$2.14  
New balance: \$335.62
6. Unpaid balance: \$371.88  
Finance charge: \$4.46  
New balance: \$891.14

7. \$4.87
8. \$9.99
9. \$14.53
10. \$7.97
11. \$28.47

### Pages 93-95

#### Think About It

1. The sum of the daily balances was \$3,786.

#### Practice

1. \$1.53
2. \$1.69
3. \$1.90
4. \$1.53
5. \$1.14
6. \$1.72; \$3,846.72
7. \$3.88; \$7,089.88
8. \$5.25; \$800.25
9. \$14.07; \$754.07
10. \$27.26; \$2,163.15
11. \$4.16; \$278.27
12. \$0.93
13. \$1.62
14. \$1.63
15. \$1.40
16. \$2.24
17. \$1.91
18. \$3.02
19. \$3.07
20. \$3.99
21. \$1.73
22. \$2.48; \$4,762.48
23. \$2.80; \$6,015.35
24. \$0.31; \$589.31
25. \$0.38; \$763.38
26. \$9.27; \$1,351.47
27. \$16.26; \$641.26
28. \$14.16; \$1,920.26
29. \$11.80; \$341.05
30. \$9.13; \$708.13
31. \$9.17; \$309.17

### Pages 98-101

#### Think About It

1. Interest rates for secured loans are usually less. The bank takes less risk with a secured loan because it has something that it can repossess, if necessary, and sell, to get at least some of its capital back.

#### Practice

1. \$403.86; \$18.86
2. \$864.72; \$55.72
3. \$627.24; \$47.24
4. \$1,357.38; \$157.38
5. \$1,562.55; \$177.55
6. \$246.39; \$7.39
7. \$19.87
8. \$86.65
9. \$56.02
10. \$89.56
11. \$4.20
12. \$63.40
13. \$68.50
14. \$82.21
15. \$99.84
16. \$93.32
17. \$205.08
18. \$114.73
19. \$150.18
20. \$92.55
21. \$131.86
22. \$57.82
23. \$100.47
24. \$79.23
25. \$29.72
26. \$47.51
27. \$2,236.80; \$137.28
28. \$5,634.80; \$115.29
29. \$14,768.20; \$133.99
30. \$5,995.40; \$122.67

31. \$4,212.40; \$258.54
32. \$10,903.60; \$115.52
33. \$20,991.00; \$190.45
34. \$6,595.20; \$111.46
35. \$6,909.80; \$424.08
36. \$25,648.20; \$271.74
37. \$28.04
38. \$1,690.20 or \$1,690.23, depending on method used

#### Practice

1. \$491.80
2. \$16.80
3. \$657.18
4. \$37.18
5. \$835.02
6. \$50.02
7. \$2,166.84
8. \$306.84
9. \$11.78
10. \$137.26
11. \$38.79
12. \$79.87
13. \$14.90
14. \$64.98
15. \$62.94
16. \$58.83
17. \$106.29
18. \$59.46
19. \$82.20
20. \$4,864
21. \$171.60
22. \$2,796
23. \$73.06
24. \$6,895.80
25. \$152.61
26. \$8,193.20
27. \$223.76
28. \$4,121.60
29. \$21.03 more
30. \$2,837.44 less