

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

## Line of Credit

The bank agreed to lend you up to \$500 as a line of credit. You can write checks to use this line of credit.

Interest = Daily Interest Rate  $\times$  Sum of the Daily Balances

**Example 1:** The sum of your daily balances for the month was \$2,700.

The **Annual Percentage Rate (APR)** is 17%. How much interest will you pay?

**THINK:** Look across from 17% to find the daily interest rate of 0.04657%.

Multiply to find the interest.

**THINK:**  $0.04657\% = 0.0004657$

$0.0004657 \times \$2,700 = \$1.25739$

You will pay \$1.26 in interest.

Annual percentage rate	Daily interest rate
20%	0.05479%
19%	0.05205%
18%	0.04931%
17%	0.04657%

You can calculate the sum of the daily balances.

**Example 2:** On February 1, the balance in your line of credit account was \$245.80.

On February 16, you wrote a \$212.50 check. New balance: \$458.30.

On February 23, you made a \$50 payment. New balance: \$408.30

The APR is 19%. Find the interest and the new balance.

**Step 1** Find the sum of the daily balances for February.

Dates	Line of Credit Balance	Number of days	Sum of the balances
Feb. 1–15	\$245.80	$\times$ 15	= \$3,687.00
Feb. 16–22	\$458.30	$\times$ 7	= \$3,208.10
Feb. 23–28	\$408.30	$\times$ 6	= \$2,449.80
Total:		28	\$9,344.90

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**Step 2** Find the daily interest rate for an APR of 19%.  $0.05205\%$

**Step 3** Multiply to find the interest.  
**THINK:**  $0.05205\% = 0.0005205$        $0.0005205 \times \$9,344.90 = \$4.8640204$

The interest is \$4.86.

**Step 4** Add to find the new balance.       $\$408.30 + \$4.86 = \$413.16$

The new balance is \$413.16.

**Think About It**

- The average daily balance is the sum of the daily balances divided by the number of days in a month. Your average daily balance for September (30 days) was \$126.20. What was the sum of the daily balances?

 <b>September</b> 						
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**Practice**

*Remember to estimate whenever you use your calculator.*

Find the daily interest on the line of credit account. Use the table in Example 1 on page 92.

<b>Sum of daily balances</b>	\$2,945	\$3,085.00	\$4,074	\$3,098.45	\$2,453.89
<b>Annual percentage rate</b>	19%	20%	17%	18%	17%
<b>Interest</b>	1. _____	2. _____	3. _____	4. _____	5. _____

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Use the daily interest rate table in Example 1 on page 92 to find the daily interest and the new balance for the account.

6. The sum of the daily balances is \$3,485 and the APR is 18%.

Interest: \_\_\_\_\_

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

7. The sum of the daily balances is \$7,086 and the APR is 20%.

Interest: \_\_\_\_\_

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

8. Sept. 1: Balance \$8.58  
 Sept. 5: Made \$175 payment  
 Sept. 19: Balance changed to \$795  
 Sept. 20-30: No more activity  
 The APR is 20%.

Interest: \_\_\_\_\_

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

9. March 1: Balance \$908  
 March 8: Balance changed to \$1,035  
 March 23: Made \$295 payment  
 March 24-31: No more activity  
 The APR is 18%.

Interest: \_\_\_\_\_

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

10. June 1: Balance \$2,085  
 June 5: Made \$475 payment  
 June 12: Balance changed to \$1,985.75  
 June 23: Balance changed to \$2,135.89  
 June 24-30: No more activity  
 The APR is 17%.

Interest: \_\_\_\_\_

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

11. July 1: Balance \$75  
 July 9: Balance changed to \$525  
 July 10: Made \$175 payment  
 July 21: Made \$75.89 payment  
 July 22-31: No more activity  
 The APR is 19%.

Interest: \_\_\_\_\_

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

*Remember to estimate whenever you use your calculator.*

Use the daily interest rate table in Example 1 on page 92 to find the interest on the line of credit account.

Sum of daily balances	\$1,987.00	\$2,958.39	\$3,125.39	\$2,560.90	\$4,539.80
Annual percentage rate	17%	20%	19%	20%	18%
Interest	12. _____	13. _____	14. _____	15. _____	16. _____

Sum of daily balances	\$3,486.85	\$5,795.20	\$6,230.60	\$7,280.00	\$3,709.45
Annual percentage rate	20%	19%	18%	20%	17%
Interest	17. _____	18. _____	19. _____	20. _____	21. _____

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**Find the interest and the new balance for the account.**

**22.** The sum of the daily balances is \$4,760 and the APR is 19%.

Interest: \_\_\_\_\_

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

**23.** The sum of the daily balances is \$6,012.55 and the APR is 17%.

Interest: \_\_\_\_\_

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

**24.** The sum of the daily balances is \$589 and the APR is 19%.

Interest: \_\_\_\_\_

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

**25.** The sum of the daily balances is \$763 and the APR is 18%.

Interest: \_\_\_\_\_

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

**26.** Nov. 1: Balance \$438  
Nov. 4: Made \$182 payment  
Nov. 23: Balance changed to \$1,342.20  
Nov. 24–30: No more activity  
The APR is 20%.

Interest: \_\_\_\_\_

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

**27.** Dec. 1: Balance \$1,650  
Dec. 12: Balance changed to \$930  
Dec. 26: Made \$305 payment  
Dec. 27–31: No more activity  
The APR is 17%.

Interest: \_\_\_\_\_

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

**28.** May 1: Balance \$438  
May 7: Made \$95 payment  
May 19: Balance changed to \$1,343.50  
May 24: Balance changed to \$1,906.10  
May 25–31: No more activity  
The APR is 18%.

Interest: \_\_\_\_\_

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

**29.** Oct. 1: Balance \$65  
Oct. 9: Balance changed to \$1,386.25  
Oct. 21: Made \$678.25 payment  
Oct. 23: Made \$378.75 payment  
Oct. 24–31: No more activity  
The APR is 20%.

Interest: \_\_\_\_\_

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

**30.** Jan. 1: Balance \$609  
Jan. 4: Made \$35 payment  
Jan. 13: Balance changed to \$602  
Jan. 20: Balance changed to \$699  
Jan. 21–31: No more activity  
The APR is 17%.

Interest: \_\_\_\_\_

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

**31.** Feb. 1: Balance \$229  
Feb. 9: Balance changed to \$830  
Feb. 16: Balance changed to \$975  
Feb. 25: Made \$675 payment  
Feb. 26–28: No more activity  
The APR is 19%.

Interest: \_\_\_\_\_

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

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

