

1. Snow-House sells a \$1,980 snow thrower on the installment plan. The installment agreement includes a 20% down payment. How much is the down payment?

$$20(1980) = \$3960$$

2. Mark wants to purchase a drum set for \$2,240. If he can save \$90 per month, how long will it take him to save up for the guitar?

$$2240 \div 90 = 24.89$$

25 months

3. Lisa purchases a professional racing bicycle that sells for \$3,000, including tax. It requires a \$200 down payment. The remainder, plus a finance charge, is paid back monthly over the next 2 1/2 years. The monthly payment is \$111.75. What is the finance charge?

\$552.50

$$30(111.75) = 3352.50$$

$$+ 200$$

$$3552.50 - 3000 = 552.50$$

4. What is the finance charge for a \$4,000, two-year loan with a 8.5% APR?

\$363.16

$$M = 4000 \left( \frac{0.085}{12} \right) \left( 1 + \frac{0.085}{12} \right)^{24}$$

$$= 181.82$$

$$181.82(24) = 4363.68$$

$$- 8000$$

$$363.16$$

5. What is the finance charge for a \$6,500, three-year loan with a 6.2% APR?

\$639.82

$$M = 6500 \left( \frac{0.062}{12} \right) \left( 1 + \frac{0.062}{12} \right)^{36}$$

$$= 198.33$$

$$198.33(36) = 7139.88$$

$$- 6500$$

$$639.88$$

6. Louis wants to take out a \$14,000 loan with a 6.8% APR. He can afford to pay no more than \$400 per month for loan payments. What would be the length of his loan? Round to the nearest tenth of a year.

3.3 years

$$t = \frac{\ln \left( \frac{400}{14000} \right) - \ln \left( \frac{14000}{14000} - \frac{0.068}{12} \right)}{12 \ln \left( 1 + \frac{0.068}{12} \right)} = 3.3$$

7. Tom and Kathy want to borrow \$35,000 in order to build an addition to their home. Their bank will lend them the money for 12 years at an interest rate of 5 3/8 %. How much will they pay in interest to the bank over the life of the loan?

\$12,508.20

$$M = 35000 \left( \frac{0.05375}{12} \right) \left( 1 + \frac{0.05375}{12} \right)^{144}$$

$$= 330.34$$

$$\times 12 \times 12$$

$$= 47368.20$$

$$- 35000$$

$$12508.20$$

8. If the APR on a credit card is 24.6%, what is the monthly interest rate?

2.05%

9. Krysta has an average daily balance of \$1,441.60. Her APR is 18%. What is the monthly interest rate? What is her finance charge for this billing cycle?

\$21.62

$$1441.60(0.015) = 21.62$$

10. Mrs. Fagin's daily balances for the past billing period are given below.

233.44(5)

For five days she owed \$233.49. For three days she owed \$651.11.

991.08(4)

For nine days she owed \$991.08. For seven days she owed \$770.00.

778.25(3)

For seven days she owed \$778.25.

- a. What is the average daily balance?

\$738.01

$$\frac{22878.25}{31} = \$738.01$$

- b. What is the finance charge if her monthly percentage rate was 2.4%?

\$17.71

$$.024(738.01) = 17.71$$

11. Donna's average daily balance was \$817.54 and her APR was 17.4%. What is her finance charge?

\$11.85

$$\div 12 = 1.451$$

$$817.54(0.0145) = 11.85$$

12. Tom's average daily balance was \$15,000 and his monthly percentage rate was 2.13%. What was his finance charge?

\$319.50

$$15000(0.0213)$$

$$= 319.50$$

13. The summary portion of Don's credit card statement is shown. Determine the New Balance amount.

Summary	Previous Balance	Payments/ Credits	Transactions	Late Charge	Finance Charge	New Balance	Minimum Payment
	2,541.23	- 500.00	+ 1,437.15	+ 5.00	+ 8.78	3492.16	

\$ 3492.16

14. Liz has a credit line of \$10,000 on her credit card. Her summary is shown. What is her available credit balance?

Summary	Previous Balance	Payments/ Credits	Transactions	Late Charge	Finance Charge	New Balance	Minimum Payment
	5,325.60	+ 1,000.00	- 2,015.12	- 0.00	- 9.56	6350.28	

\$ 3649.72

$$10,000 - 6350.28 = 3649.72$$

15. Determine the new balance using the following summary statement.

Summary	Previous Balance	Payments/ Credits	Transactions	Late Charge	Finance Charge	New Balance	Minimum Payment
	725.30	- 200.00	+ 350.12	+ 0.00	+ 12.12	887.54	

\$ 887.54

16. Marcy's monthly periodic rate is 1.24%. What is her APR?

14.88%

Use the below credit card statement form #17 - 20

ACCOUNT INFORMATION							
Account Number		3-22767195		Billing Date		5 May	
				Payment Due		18 May	
TRANSACTIONS						DEBITS / CREDITS (-)	
7 APR	124576893	Macy's				\$676.00	
15 APR	762938471	Bedford Auto Body Shop				\$721.80	
19 APR	309175832	Barnes and Noble Books				\$93.15	
27 APR	100445638	Payment				-\$1,340.00	
30 APR	876655411	FedEx				\$115.75	
3 MAY	998430828	TicketMaster				\$450.95	
SUMMARY	Previous Balance	Payments / Credits	New Purchases	Late Charge	Finance Charge	New Balance	Minimum Payment
	\$978.00	\$1,340.00	\$2,057.65	\$0.00			\$115.00
Total Credit Line				Average Daily Balance		APR	
Total Available Credit						Monthly Periodic Rate	
				30		19.8%	
						1.65%	

17. When is the payment for this statement due?  
May 18
18. What is the minimum amount that can be paid?  
\$115.00
19. How many days are in the billing cycle?  
30
20. What is the previous balance?  
\$978.00

Shannon Houston				720 Timber Trail Dr Indianapolis, IN				
ACCOUNT INFORMATION								
Account Number 15677289-02				Billing Date 6 Apr		Payment Due 30 Apr		
TRANSACTIONS						DEBITS / CREDITS (-)		
9 Mar	Gingham Pastry Shop					\$27.68		
11 Mar	Corner Clothes					\$127.35		
16 Mar	Le Petite Menu					\$87.40		
22 Mar	Payment					- \$190.00		
26 Mar	Dutchess Pharmacy					57.30		
28 Mar	Sparrow Jewelers					\$325.90		
4 Apr	Elder's Antiques					\$870.21		
						1495.84		
SUMMARY		Previous Balance	Payments / Credits	Transactions	Finance Charge	New Balance	Minimum Payment	
		\$560.30			\$0.00		\$25.00	
Total Credit Line				\$ 5,000.00	Average Daily Balance	# Days in Billing Cycle	APR	Monthly Periodic Rate
Total Available Credit				\$ 4,000.00		30	15.6%	
Credit Line for Cash				\$ 4,000.00				
Available Credit for Cash				\$ 4,000.00				

21. What is Shannon's average daily balance?

$\$802.109$

22. What is Shannon's monthly periodic rate?  $15.6 \div 12 = 1.3$

1.3%

23. What is Shannon's finance charge?  $0.013(\$802.109) = 11.47$

$\$11.47$

24. What is Shannon's new balance?  $\$560.30 - \$190.00 + 1495.84 + 11.47 = 1877.61$

$\$1877.61$

25. What is Shannon's available credit?  $5000 - 1877.61$

$\$3122.39$

560.30	587.98	587.98	715.33	715.33	715.33	715.33
12	14	15	16	17	18	19
715.33	802.73	802.73	802.73	802.73	802.73	802.73
19	20	21	22	23	24	25
-190.00	612.13	612.13	612.13	612.13	669.43	669.43
26	27	28	29	30	31	32
995.33	995.33	995.33	995.33	995.33	995.33	995.33
33	34	35	36	37	38	39
1865.54	1865.54					
40	41	42	43	44	45	46

$$560.30 + 587.98(2) + 715.33(5) + 802.73(6) + 612.13(4) + 669.43(2) + 995.33(7) + 1865.54(3) = 26480.109$$

$$= 882.69$$

