

Name: KEY

### Consumer Credit: Chapter 4 Review

1. Faith is taking an \$8,100,  $2\frac{1}{2}$  year loan with an APR of 8.22%. What is the monthly payment for this loan?

$$M = \frac{P\left(\frac{r}{12}\right)\left(1 + \frac{r}{12}\right)^{12t}}{\left(1 + \frac{r}{12}\right)^{12t} - 1} = \frac{8100\left(\frac{.0822}{12}\right)\left(1 + \frac{.0822}{12}\right)^{30}}{\left(1 + \frac{.0822}{12}\right)^{30} - 1} = 299.61$$

2. Shania bought a \$1,455 drum set on the installment plan. The installment agreement included a 15% down payment and 18 monthly payments of \$80.78 each.
- a. How much is the down payment?

$$1455 \times .15 = 218.25$$

- b. What is the total amount of the monthly payments?

$$18 \times 80.78 = 1454.04$$

- c. How much will Shania pay for the drum set on the installment plan?

$$1454.04 + 218.25 = 1672.29$$

- d. What is the finance charge?

$$1672.29 - 1455 = 217.29$$

3. Carly took a \$7,000, three-year loan with an APR of 8.15%.

- a. What is the monthly payment?

$$\$ 219.84$$

- b. What is the total amount of the monthly payments?

$$219.84 \times 36 = 7914.21$$

- c. What is the finance charge?

$$7914.21 - 7000 = 914.21$$

4. Sarah is taking out a \$24,400, four-year new-car loan with an APR of 6.88%. What is the finance charge for this loan? Round to the nearest hundred dollars.

$$\text{Monthly payment} = 582.93$$

$$582.93 \times 48 = 27980.64$$

$$27980.64 - 24400 = 3580.64 \text{ } (\$3600)$$

Name: \_\_\_\_\_

5. The policy of the Black Oyster Pawnshop is to lend up to 30% of the value of a borrower's collateral. Pete wants to use a \$2,000 guitar and a \$900 camera as collateral for a loan. What is the maximum amount that he could borrow from Black Oyster?

$$2000 + 900 = 2900$$

$$2900 \times .30 = 870$$

6. Jake had these daily balances on his credit card for his last billing period. He did not pay the card in full the previous month, so he will have to pay a finance charge. The APR is 18.6%.

two days @ \$331.98

eleven days @ \$1,203.04

four days @ \$996.71

thirteen days @ \$1,002.76

- a. What is the average daily balance?

$$30920.12 \div 30 = 1030.67$$

- b. What is the finance charge?

$$18.6 \div 12 = 1.55$$

$$1030.67 \times .0155 = 15.98$$

- ~~7. Kim's credit card was not paid in full last month so she will pay a finance charge this month. She had an average daily balance of \$ $d$  during this billing period, which had 31 days. The APR was  $p\%$ .~~

- ~~a. Express algebraically the APR as an equivalent decimal.~~

- ~~b. Express algebraically the monthly percentage rate as an equivalent decimal.~~

8. The finance charge on Lauren's credit card bill last month was \$13.50. Her APR is 18%. What was her average daily balance?

$$18 \div 12 = 1.5\%$$

$$\frac{.015x}{.015} = \frac{13.50}{.015}$$

$$x = 900$$

9. Riel had an average daily balance of \$415.22 on his May credit card statement. The bill showed that his APR was 21.6% and that his finance charge was \$89.69. When he verified the finance charge, did he find that it was correct or incorrect? Explain.

$$21.6 \div 12 = 1.8$$

$$415.22 \times .018 = 7.47$$

no - forgot to divide  
APR by 12 first

Name: \_\_\_\_\_

10. What is the monthly periodic rate on a loan with an APR of 19.5%?

$$19.5 \div 12 = 1.625\%$$

11. Harold borrowed \$8,000 for five years at an APR of 6.75%.

a. What is Harold's monthly payment?

$$19.68 \times 8 = 157.44$$

b. What is the total amount that Harold paid in monthly payments for the loan?

$$157.44 \times 60 = 9446.40$$

c. What is the amount Harold will pay in finance charges?

$$9446.40 - 8000 = 1446.40$$

12. Examine the summary section of the monthly credit card statement.

Use the first five entries to determine the new balance.

SUMMARY	Previous Balance †	Payments/Credits -	New Purchases †	Late Charge †	Finance Charge †	New Balance	Minimum Payment
	\$421.36	\$1,703.50	\$1,273.11	\$0.00	\$9.03	0.00	\$18.00

13. Bill can afford a monthly payment of \$475. He wants to take out a \$20,000 loan at 7% interest rate. What should the length of the loan be? Round your answer to the nearest year.

$$475 \div 20 = 23.75$$

4 years

~~14. Ciana wants to take out a \$7,500 loan with a 5.3% APR. She can afford to pay \$128 per month for loan payments.~~

~~a. What should be the length of her loan? Round to the nearest tenth of a year.~~

~~b. What would an increase of \$20 to the monthly payment do to the length of her loan?~~

Name: \_\_\_\_\_

15. Use the credit card statement and a blank credit card calendar.

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				\$3,000.00	Average Daily Balance	# Days in Billing Cycle	APR
Total Available Credit						30	19.8%
							Monthly Periodic Rate
							1.65%

978.00	+676							
6	7	8	9	10	11	12		
	→	+721.80					+93.15	
13	14	15	16	17	18	19	2468.95	
20	21	22	23	24	25	26		
-1340.00			+115.75				+450.95	
27	28	29	30	1	2	3	1695.65	
4	5	X	X	X	X	X		

a. What is the total of all of the purchases made this billing cycle?

2057.65

b. What is the amount of total payments?

1340.00

c. What is sum of the daily balances?

55672.70

d. What is the average daily balance?

1855.76

e. What is the monthly periodic rate?

$$19.8 \div 12 = 1.65\%$$

f. What is the finance charge?

$$1855.76 \times .0165 = 30.62$$

g. What is the new balance?

$$1695.65 + 30.62 = 1726.27$$

h. What is the available credit?

$$3000 - 1726.27$$

1273.73