

Name Answer Key

Financial Math

Credit Cards Quiz Review

10) Use the following chart and the formula on the board to determine the answers:

Katie buys a \$4000 set of bedroom furniture. She plans on paying \$700 per month. Her credit card charges her 24% interest.

- a. Find how long it takes Katie to pay off the game system
- b. How much interest does she pay? $\$200.64$
- c. What was the total cost of the furniture set to Katie? $\$4200.64$

6 months

$$A = P \left(1 + \frac{r}{12} \right)^{12 \times \frac{t}{2}}$$

Month	Beginning Balance	Amount Paid	Outstanding Balance	Interest Calculated	Ending Balance
February	4000	700	3300	$3300 \left(1 + \frac{.24}{12} \right)$	\$3366
March	3366	700	2666	$2666 \left(1 + \frac{.24}{12} \right)$	\$2719.32
April	2719.32	700	2019.32	$2019.32 \left(1 + \frac{.24}{12} \right)$	\$2059.71
May	2059.71	700	1359.71	$1359.71 \left(1 + \frac{.24}{12} \right)$	\$1386.90
June	1386.90	700	686.90	$686.90 \left(1 + \frac{.24}{12} \right)$	\$700.64
July	700.64	700.64	0		
		4200.64			

11) Use the following chart and the formula on the board to determine the total amount of savings gained by using a rewards credit card over a 6 month period. Assume 1% bank interest and 1.5% rewards cash-back

Month	Purchases	Bank Interest Earned	Rewards Earned	Total Monthly Savings
Jan	2000	$2000 \left(1 + \frac{.01}{12} \right) = 2003.33$ \$3.33	$2000 \times .015 = \$30$	\$33.33
Feb	1300	$1300 \left(1 + \frac{.01}{12} \right) = 1302.17$ \$2.17	$1300 \times .015 = \$19.50$	\$21.67
March	3500	$3500 \left(1 + \frac{.01}{12} \right) = 3505.84$ \$5.84	$3500 \times .015 = \$52.50$	\$58.34
Apr	6000	$6000 \left(1 + \frac{.01}{12} \right) = 6010.00$ \$10.00	$6000 \times .015 = \$90$	\$100
May	1650	$1650 \left(1 + \frac{.01}{12} \right) = 1652.75$ \$2.75	$1650 \times .015 = \$24.75$	\$27.50
June	2500	$2500 \left(1 + \frac{.01}{12} \right) = 2504.17$ \$4.17	$2500 \times .015 = \$37.50$	\$41.67
Total Yearly Savings				\$282.51