

Name _____

Mrs_Lewis_Business_Math_B_Period 8 Offsite_Learning_Packet_Day 2

State Indicator/Competency: Calculate expected values and use them to solve problems.

Instructional Objective(s):

4.1 Credit Card Costs

1. Students will be able to identify important information about credit card terms and conditions with 80% accuracy.
2. Students will be able to calculate the new balance on a credit card with 80% accuracy.
3. Students will be able to verify transactions on credit card statements with 80% accuracy.
4. Students will be able to calculate the cost of using a credit card with 80% accuracy.

4.2 Credit Card Finance Charges

1. Students will be able to calculate finance charges using a daily or monthly periodic rate with 80% accuracy.
2. Students will be able to calculate finance charges using previous balance method with 80% accuracy.
3. Students will be able to calculate finance charges using adjusted balance method with 80% accuracy.

4.3 Average Daily Balance Method

1. Students will be able to calculate finance charges using average daily balance method with 80% accuracy

4.4 Cash Advances

1. Students will be able to calculate total finance charges on cash advances with 80% accuracy.
2. Students will be able to calculate credit card balances that include cash advances with 80% accuracy.

4.5 Debt Management

1. Students will analyze a credit card account when minimum payments are made with 80% accuracy.
2. Students will be able to determine the percent of payments made towards paying off a credit card with 80% accuracy.
3. Students will be able to calculate debt-to-income ratio with 80% accuracy.

Materials: textbook, calculator, binder, writing utensil

Method of Instruction: Independent Student Led

Activities:

1. Michelle Peterson's credit card statement for the month of December showed a membership fee of \$40, a late fee of \$15, a finance charge of \$11.72, and an over-the-limit fee of \$14. What was the total cost of the card to Michelle in December? ($40 + 15 + 11.72 + 14 = \$80.72$)
2. Kurt borrowed \$225 for 18 days on his credit card using a cash advance. His credit company charged a cash advance fee of \$12 and a daily periodic interest rate of 0.054%. What was the total finance charge on the cash advance? ($225 \times .054\% \times 18 + 12 = \14.19)

Mrs_Lewis_Business_Math_B_Period 8 Offsite_Learning_Packet_Day 2**Directions** Read through the entire project before you begin doing any work.

Maurice has two credit cards, each with a balance. Maurice realizes that he is in a dangerous financial position and has decided to stop using his credit cards. His plan is to pay the minimum balance each month for both cards and commits to finding a way to get out of debt quicker.

Given below are the balances for each card on June 1 and their terms and conditions statements.

CreditFirst: \$967

Sun Money card: \$7,312

Terms and Conditions for CreditFirst

Annual percentage rate (APR) for new purchases	16.5%, using monthly periodic rate
Other ARPs	Cash Advance: 21.9%
	Balance Transfer: 15.6%
	Penalty rate: 22.9%. See explanation below.*
Variable-rate information	Your ARP for purchase transactions may vary. The rate is determined monthly by adding 5.9% to the Prime Rate.**
Grace period for repayment of balances for purchases	25 days on average
Method for computing the balance for purchases	Adjusted balance method, 30 day billing cycle
Annual fees	\$50
Minimum Finance charge	2% or \$1.50, whichever is greater
Transaction fee for cash advances: 3% of amount received	
Balance transfer fee: 2.5% of the amount transferred	
Late payment fee: \$25	
Over-the-credit-limit fee: \$35	
*Explanation of penalty: If your payment arrives more than ten days late, the penalty rate applies until further notice	
**The Prime Rate used to determine your APR is the rate published in the <i>Wall Street Journal</i> on the 10th day of the prior month.	

Terms and Conditions for Sun Money

Annual percentage rate (APR) for new purchases	15.2%, using daily periodic rate
Other ARPs	Cash Advance: 18.4%
	Balance Transfer: 15.6%
	Penalty rate: 23.9%. See explanation below.*
Variable-rate information	Your ARP for purchase transactions may vary. The rate is determined monthly by adding 5.9% to the Prime Rate.**
Grace period for repayment of balances for purchases	25 days on average
Method for computing the balance for purchases	Adjusted Balance Method, 30 day billing cycle.
Annual fees	\$0
Minimum Finance charge	3% or \$2.50, whichever is greater
Transaction fee for cash advances: 2.5% of amount received	
Balance transfer fee: 2.5% of the amount transferred	
Late payment fee: \$29	
Over-the-credit-limit fee: \$35	
*Explanation of penalty: If your payment arrives more than ten days late, the penalty rate applies until further notice	
**The Prime Rate used to determine your APR is the rate published in the <i>Wall Street Journal</i> on the 10th day of the prior month.	

Using Maurice's current plan, answer the following questions.

1. What periodic rate does CreditFirst use?
2. What periodic rate does Sun Money use?
3. What is the minimum payment he must make to CreditFirst in June?
4. What is the minimum payment he must make to Sun Money in June?
5. What is the minimum payment he must make to CreditFirst in July?
6. What is the minimum payment he must make to Sun Money in July?
10. On this current plan, when can Maurice expect to have his Sun Money card paid off? Explain. Give your answer in months, then years.
11. Why is he able to pay the card with the greater balance off quicker?

Step Two

Maurice receives an offer from a different credit card company that offers an APR of 0% on new purchases and a lower APR on transferred balances. The terms and conditions statement for this card is shown below.

Terms and Conditions for One Finance

Annual percentage rate (APR) for new purchases	0% for six months, then 12.8%, using daily periodic rate
Other ARPs	Cash Advance: 19.1%
	Balance Transfer: 1.5% for 16 months, then 14.8%
	Penalty rate: 24.2%. See explanation below.*
Variable-rate information	Your APR for purchase transactions may vary. The rate is determined monthly by adding 4.9% to the Prime Rate.**
Grace period for repayment of balances for purchases	25 days on average
Method for computing the balance for purchases	Average daily balance (excluding new purchases)
Annual fees	\$0
Minimum Finance charge	3.5% or \$5.50, whichever is greater
Transaction fee for cash advances: 3% of amount received	
Balance transfer fee: 2.25% of the amount transferred if the amount \geq \$1,000, 2.5% for all other balances transferred.	
Late payment fee: \$35	
Over-the-credit-limit fee: \$35	
*Explanation of penalty: If your payment arrives more than ten days late, the penalty rate applies until further notice	
**The Prime Rate used to determine your APR is the rate published in the <i>Wall Street Journal</i> on the 10th day of the prior month.	

Maurice considers applying for this card and transferring both balances.

12. What APR will he be charged initially on the transferred balances?

13. What fee will he be charged to transfer his CreditFirst balance?

14. What fee will he be charged to transfer his Sun Money balance?

Step Three

Maurice really wants to have the balance paid within 16 months, so he adjusts his budget and finds an additional \$200 to apply to his credit card balance each month. He also received a promotion at work, which gives him another \$60 each month to apply toward paying off his debt. He plans to pay \$500 each month to One Finance.

18. How much of that \$500 will go toward each month? Explain your answer,

19. Can he expect to have the debt paid off in 16 months? Explain your answer.

20. What might be a reason he wanted to pay the balance off within 16 months?

- a. Clara is single and has a gross income of \$32,600. She pays \$2,600 into an approved retirement plan. Clara has deductions of \$6,900. She has one exemption for herself
- b. Clark and his spouse have a gross income of \$33,000. They file jointly. They make payments into an approved retirement plan of \$3,000. Their itemized deductions were only \$4,300. So they will take the standard deduction of \$10,900. They claim two deductions.

SOLUTION

	a. Clara Shane	b. The Crosses
Gross Income	\$32,600	\$33,000
Adjustments to Income	- 2,600	- 3,000
Adjusted Gross Income	\$30,000	\$30,000
Deductions	- 6,900	- 10,900
	\$23,100	\$19,100
Exemptions	- 3,500	- 7,000
Taxable Income	\$19,600	\$12,100

For taxable income		
Over —	But not over —	The tax is —
\$ -0-	\$8,000	2% of taxable income
8,000	16,000	\$160 plus 3% of taxable income over \$8,000
16,000	24,000	\$400 plus 4% of taxable income over \$16,000
24,000	32,000	\$720 plus 5% of taxable income over \$24,000
32,000	40,000	\$1,120 plus 6% of taxable income over \$32,000
40,000	48,000	\$1,600 plus 7% of taxable income over \$40,000
48,000	56,000	\$2,160 plus 8% of taxable income over \$48,000
56,000	64,000	\$2,800 plus 9% of taxable income over \$56,000
64,000	72,000	\$3,520 plus 10% of taxable income over \$64,000

3. Your taxable income last year was \$25,800. Using the graduated income tax table, what you're your state income tax?

Find the tax on taxable income up to 24000: \$720

Find the taxable income over 24000: $25800 - 24000 = \$1,800$

Find the tax on 1800 at a rate of 5%: $1800 \times .05 = \$90$

Find the total state income tax: $720 + 90 = \$810.00$

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