AMDM- Test Review Unit VI

Name: Key
Date:

Answer each question completely. You must show work and answer in complete sentences to receive full credit.

1. Cindy owes $3,000.00 on her credit card that has an annual percentage rate of 11.3%. If she stops using the card now and pays $200 a month, determine how much she will have the debt reduced by in 2 months. Show work below.

Month 1 DPR = $\frac{11.3}{365}$ = .03096%

Finance Charge: 3,000(.0003096)(31) = $28.79

200 payment
− 28.79 FC
171.21 principal

3,000 − 171.21 = $2828.79 After 1 month

* To find month 2, repeat the process using as owed amount.

2. Sandy owes $10,000 on her credit card that has an annual percentage rate of 18.99%. If she stops using the card now and pays $600 a month, determine the balance she will have left on the card at the end of 3 months. Show work below.

DPR = $\frac{18.99}{365}$ = .0520%

FC: 10,000(.00052)(31) = $161.20

600
− 161.20
$438.80

10,000
− 438.80
$9561.20 Balance after 1 month

To find months 2 and 3, repeat using new balance.

3. Juan is considering buying a new car with a sticker price of $25,000. His credit union offers him a 5-year car loan at 5.8% APR with 10% as a down payment. Find the monthly payment.

25,000 (.10) = 2500

25,000 − 2,500 = $22,500 loan amount

$FV = 22{,}500\left(1+\frac{.058}{12}\right)^{5(12)}$

FV = $30,048.62 ÷ 60 payments

$500.81 per month

4. Jacob is considering buying a new car with a sticker price of $50,000. His credit union offers him a 5-year car loan at 2.99% APR with 10% as a down payment. How much will Jacob pay for his car at the end of the loan. (total)

50,000 (.10) = 5000

50,000 − 5,000 = 45,000

$FV = 45{,}000\left(1+\frac{.0299}{12}\right)^{12(5)}$

FV = $52,246.69 ÷ 60

$870.78 per month

5. 3. Jane wants to have $40,000 in 30 years. What is the smallest initial investment that she would be able to begin with if her investment will be compounded quarterly at a 4.6% interest rate?

$40{,}000 = x\left(1+\frac{.046}{4}\right)^{30(4)}$

40,000 = x(3.9437)

x = $10,142.70 Initial Investment

6. Mr. Murphy has just started a career in the aerospace industry. He is 25 years old and wants to