MAT 1053 - MODULE 8.1 PRE-CLASS WORK

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MODULE 8.1 – APPLICATION: LOANS

LEARNING OBJECTIVES

In this section, you will:

- Find the amount of a loan given the payments.
- Find the payments required given the loan amount.

Demand Loans and Characteristics

- State the definition of a demand loan.
- State the characteristics of a demand loan.
- State the types of simple interest financing.

Repayment Schedules

- State the definition of a repayment schedule.
- List the step of a repayment schedule.



Follow these steps when setting up a repayment schedule

Note: Module 8.1 Guided Notes has 4 pages!

MODULE 8.1 - CLASS NOTES

1. Woodgrain Industries took out an operating loan with RBC for \$20,000 at a fixed interest rate of 8% on September 14. The operating loan requires a monthly fixed payment of \$800 on the 14th of every month. Create the first three months of its repayment schedule.

Date	Balance before Transaction	Annual Interest Rate	Number of Days	Interest Charged	Accrued Interest	Payment (+) or Advance (⁻)	Principal Amount	Balance after Transaction
Sep 14								\$20,000
Oct 14		8%				\$800		
Nov 14		8%				\$800		
Dec 14		8%				\$800		

2. On July 15, when the prime rate was set at 4%, Canadian Footwear took out an operating loan from CIBC for \$8,000 at prime plus 1.25%. The terms of the loan require a fixed payment of \$1,500 on the 15th of every month until the loan is repaid. The prime rate climbed by 0.5% on September 29. Create a repayment schedule for the loan and calculate the total interest paid.

Date	Balance before	Annual Interest	Number of	Interest Charged	Accured Interest	Payment (+) or	Principle Amount	Balance after Transaction
	Transaction	Rate	Days	(I=Prt)		Advance (-)		
	(P)	(r)	(t)					

3. Lynne has access to a HELOC that requires only the payment of accrued interest on the first of every month. On March 1, the opening balance on her HELOC was \$15,000. She took advances of \$6,000 and \$10,000 on March 21 and May 4, respectively. She made additional payments of \$11,000 and \$15,000 on April 15 and June 17. The interest rate on her HELOC sits at prime plus 2%. On March 1, the prime rate was 3%. On April 26, it rose by 0.5%. Determine the total interest paid on her HELOC from March 1 to July 1.

Date	Balance	Annual	Number	Interest	Accured	Payment (+)	Principle	Balance after
	before	Interest	of	Charged	Interest	or	Amount	Transaction
	Transaction	Rate	Days	(I=Prt)		Advance (-)		
	(P)	(r)	(t)					

4. Rufaro has been a full-time student at the University of Manitoba for the past four years. She has just completed her bachelor of commerce degree from the Asper School of Business and her last day of exams was April 28. Her total student loan is \$30,000. She has decided to take her six-month grace period and convert it to principal, then start making payments of \$400 per month using the variable interest rate of prime + 2.5%. The current prime rate is 4.25%. On January 10, she will make an additional payment of \$250 toward her loan. On August 27 and again on February 22, the prime rate rises by 0.5%. Construct a repayment schedule displaying only the first six months of payments. Calculate the total interest on her student loan charged for the entire year (April 30 to April 30). Assume February has 28 days.

Date	Balance	Annual	Number	Interest
	before	Interest	of	Charged
	Transaction	Rate	Days	(I=Prt)
	(P)	(r)	(t)	

Date	Balance	Annual	Number	Interest	Accured	Payment (+)	Principle	Balance after
	before	Interest	of	Charged	Interest	or	Amount	Iransaction
	Transaction	Rate	Days	(I=Prt)		Advance (-)		
	(P)	(r)	(t)					