

**Unit 8 L 4: Installment Loan - Allocation of Monthly Payment OBJ: Compute the interest, payment to principal and the new balance on the loan.**

**Bell Ringer - page 296: 18-26all**

18.) \$600

19.) \$900

20.) \$672

21.) \$282.07

22.) \$610.71

23.) \$91.24

24.) \$20.45

25.) \$1,476.78

26.) \$864.29

**LOAN FOR \$10.00**  
**MONTHLY PAYMENT OF \$5**

	<b>MON PAY</b>	<b>AMT FOR I</b>	<b>AMT FOR PRIN</b>	<b>BAL</b>
				\$10-1 \$9
<b>MONTH 1</b>	\$5	\$4	\$1	\$9-1.50 \$7.50
<b>MONTH 2</b>	\$5	\$3.50	\$1.50	\$7.50-2 \$5.50
<b>MONTH 3</b>	\$5	\$3.00	\$2	\$5.50-2.50 \$3.00
<b>MONTH 4</b>	\$5	\$2.50	\$2.50	\$3.00-2.75 \$0.25
<b>MONTH 5</b>	\$5	\$2.25	\$2.75	
<b>MONTH 6</b>	\$1.25	\$1.00	\$0.25	<b>\$0</b>

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**Repayment Schedule:** Shows the way your monthly payment is broken up into interest and payment to the principal to get your new balance on the loan.

**Important Formulas**

Interest = Principal X Rate X Time--We will use ONE Month for time which is a fraction of one-twelfth, just ÷ by 12 for time.

Payment To Principal = Monthly Payment - Interest

New Principal (Balance) = Previous Principal - Payment to Principal

# Unit 8 L 3 Simple Interest Installment Loans

OBJ: Figure the monthly payment, Total amount repaid, and the Finance charge on an installment loan.

and principal on an installment loan of \$1,800 for 6 months at 8 percent.

**Repayment Schedule for a \$1,800 Loan at 8.0% for 6 Months**

Payment Number	Monthly Payment	Amount for Interest	Amount for Principal	Balance
				\$1,800.00
1	\$307.08	\$12.00	\$295.08	\$1,504.92
2	307.08	10.03	297.05	1,207.87
3	307.08	8.05	299.03	908.85
4	307.08	6.06	301.02	607.82
5	307.08	4.05	303.03	304.80
6	<del>307.08</del> 306.83	2.03	<del>305.05</del> 304.80	<del>-0.25</del> 0

Note that the last payment would be reduced by \$0.25 in order to zero out the loan.

Important Questions	What Formulas Do I Use?
What's the formula for interest?	$\text{Interest} = \text{Principal} \times \text{Rate} \times \text{Time}$
How do I find the payment to principal?	$\text{Payment to Principal} = \text{Monthly Payment} - \text{Interest}$
How do I find the new principal?	$\text{New Principal} = \text{Previous Principal} - \text{Payment to Principal}$

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$$1 \ \$1,504.92 \times 8\% \div 12 = \underline{\$10.03} \text{ (Interest)}$$

$$2 \ \$307.08 - \underline{10.03} = \underline{\$297.05} \text{ (Amt for Principal)}$$

$$3 \ \$1,504.92 - \underline{297.05} = \underline{\$1,207.87} \text{ (New Balance)}$$

New Principal

## Unit 8 L 4: Installment Loan - Allocation of Monthly Payment

OBJ: Compute the interest, payment to principal and the new balance on the loan.

**EXAMPLE:** Isabel Rosano obtained a home improvement loan for \$11,000 at 14% for 48 months. Her monthly payment is \$300.30. How much of the first monthly payment is for

interest? \$128.33 How much is for principal? \$171.97

What is the new balance on the loan after the first \$300.30 - 128.33 payment? \$10,828.03

$$\text{\$}11,000 - 171.97$$

$$I = P \times R \times T$$
$$\text{\$} 11,000 \times 14\% \div 12 = \text{\$}128.33$$

## Unit 8 L 4: Installment Loan - Allocation of Monthly Payment OBJ: Compute the interest, payment to principal and the new balance on the loan.

**EXAMPLE:** Shane Morris has a college tuition loan for \$14,000.<sup>P</sup> The interest rate is 10% for 42 months. His monthly payment is \$396.20. How much of the first monthly payment will Shane pay as interest? \$116.67 How much of the first monthly payment will pay on the principal? \$279.53 What is the new balance after the first monthly payment? \$13,720.47

$$I = P \times R \times T$$

$$\$14,000 \times 10\% \div 12$$

$$\begin{array}{r} \$396.20 \\ - 116.67 \\ \hline \end{array}$$

$$\begin{array}{r} \$14,000 \\ - 279.53 \\ \hline \end{array}$$

**Unit 8 L 4: Installment Loan -Allocation of Monthly Payment OBJ: Compute the interest, payment to principal and the new balance on the loan.**

**Assignment: Page 295-296: 4-17 all. NOTE**  
**#5-10 are each a different loan.**  
**#11-17 is ONE loan, so #12 uses answer from #11 and #13 uses answer from # 12 and so on!**