UNIT 8 LESSON 1 SINGLE-PAYMENT LOANS

OBJ: COMPUTE THE MATURITY VALUE AND INTEREST RATE OF A SINGLE PAYENT

Important Vocabulary

Single-Payment Loan -A loan that you repay with ONE single payment.

Promissory Note -A type of single-payment loan. It is a written promise that you will pay a specified amount of money on a specified date in the future.

Maturity Value -Is the total amount you must pay.It includes the amount you borrowed (Principal) and the amount of interest you owe.

Term -This is the amount of time for which the loan is granted.

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When the term is a certain number of days, the lending institution (bank) may calculate interest in one of 2 ways. ORDINARY INTEREST or EXACT INTEREST.

ORDINARY interest is figured using 360-day years

EXACT interest is figured using 365-day years.

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IMPORTANT FORMULAS

INTEREST = Prinicipal X Rate X Time

so

Days

ORIDNARY INTEREST = PRINCIPAL X RATE X TIME ÷ 360

EXACT INTEREST = PRINCIPAL X RATE X TIME ÷ 365

MATURITY VALUE = PRINCIPAL + INTEREST OWED

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Example 1: Compute the Interest on a single-payment loan of $1,575.00 at 11% for 47 days of exact interest.

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$\$1{,}575 \times 11\% \times \frac{47}{365} = \boxed{\$22.31}$ Interest.

Example 2: Compute the interest on a single-payment loan of $3,616 at 9% for 98 days of ordinary interest.

$\$3{,}616 \times 9\% \times 98 \div 360 = \boxed{\$88.59}$

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Example 3: Single-payment loan of $6,425. Interest rate of 7 percent. Days of ordinary interest: 180 days.

$6,425 x 7% x 180 ÷ 360

What is the interest owed? $224.88

What is the maturity value? $6,649.88

Amount repaid.

$6,425 + 224.88

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Example 4: LaVar Brown borrowed $4,357. The bank granted him a single-payment loan at 8.75 percent exact interest for 250 days. Find the exact interest owed. What is the maturity value of his loan?

Exact Interest = $4,357 x 8.75% x 250 ÷ 365 =

$261.12

Maturity Value $4,357 + $261.12 = $4618.12

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Example 5: Laura Johnson obtained a single-payment of $11, 300.00. The bank is charging her 9.5% ordinary interest for 164 days. What is the amount of interest Laura will have to pay? What is the maturity value of her loan?

Interest = $11,300 × 9.5% × 164 ÷ 360 = $489.04

$11,300 + 489.04 = $11,789.04

Maturity Value