Qualifying the Buyer

Amortizations

Simple Interest

You borrow $200,000 for 1 year at 5.5%.
What do you owe at the end of the year?

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Simple Interest

You borrow $200,000 for 1 year at 5.5%.
What do you owe at the end of the year?

$200,000* .055 = $11,000
$200,000 + $11,000 = $211,000

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Annual Interest
Monthly Interest?????

$11,000 Annual Interest

11,000 ÷ 12 = $916.67 Monthly Interest

If you borrowed $200,000 for 18 months,
what would the interest charge be?

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Annual Interest
Monthly Interest $$$

$200,000 * .055 = $11,000

$11,000 ÷ 12 = $916.67

$916.67 * 18 = $16,500.06

$200,000 + $16,500.06 = $216,500.06

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Annual Interest
Daily Interest $$$$$

$916.67 ÷ 30 = $30.56

Daily Interest

Banker Year

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Annual Interest
Daily Interest $$$$$

$11,000 ÷ 365 = $30.14
Daily Interest
Calendar Year

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Principal Interest & Amortization

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Page 405 of the Mastering
Real Estate
PrinciplesTextbook

Principal Interest & Amortization

$200,000 @ 5.5% For
30 Years
(Hint: You must always find the
principal & interest payment first)

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Page 405 of Mastering Real Estate Principles

- The Table Shows the Rate Per Thousand to Calculate Principal and Interest
- Find the Appropriate Factor for the Rate and Term
- Multiply that Factor Times the Number of Thousands to Determine the Monthly Payment

$1136

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After Finding the Payment…

- 4-Step Process
1. Beginning balance multiplied by the interest rate = yearly interest
2. Yearly interest divided by 12 = monthly interest
3. Monthly interest subtracted from the payment = principal
4. Principal subtracted from the beginning balance = new beginning balance

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- The Current Month's Balance * Annual Interest Rate ÷ By 12 = The Interest Rate For The Current Month

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Balance at the EOM 1

- $200,000 * 5.5% = $11,000.00
- $11,000 ÷ 12 = $916.67 (This Month's Interest)
- $1136 - $916.67 = $219.33 (Principal)
- $200,000 - $219.33 = $199,780.67

The Balance and the End of Month 1
Is: $199,780.67

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Factor used for calculating the payment is NOT used to calculate the interest

Based on balance * interest rate NOT the rate from the table.

	Principal	Monthly Payment Based on Table	Interest Rate	
	$ 200,000	$ 1,136.00	5.5%	30 Years
	Balance	Interest	Monthly	Principal
Beginning	$ 200,000.00	$ 11,000.00	$ 916.67	$ 219.33
EOM 1	$ 199,780.67	$ 10,987.94	$ 915.66	$ 220.34
EOM 2	$ 199,560.33	$ 10,975.82	$ 914.65	$ 221.35
EOM 3	$ 199,338.98	$ 10,963.64	$ 913.64	$ 222.36

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Make Your Life Easier

HB 10 B I I

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Exercise Set

- "Interest, Loan Amounts & Payments"
  Page 45 of the Module II Outline

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1. $207,500 mortgage loan interest at six & three-quarter (6.75%) percent for 20 years requires equal monthly payments for interest and principal. How much are the monthly payments? How much of this total monthly payment is interest and how much is principal for the first and second months of the loan period?

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1. $207,500 mortgage loan interest at six & three-quarter (6.75%) percent for 20 years requires equal monthly payments for interest and principal. How much are the monthly payments? How much of this total monthly payment is interest and how much is principal for the first and second months of the loan period?

7.60 x 207.5 = 1577
Principal & Interest Payment

	Payment	Interest	Principal	Remaining Balance
1st Month	$ 1,577.00	$ 1,167.19	$ 409.81	$ 207,090.19
2nd Month	$ 1,577.00	$ 1,164.88	$ 412.12	$ 206,678.07

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2. Set up a table of amortization for a $137,000 loan to be amortized monthly at six percent interest over Fifteen (15) years, showing all entries for total payments, interest, principal and balance due for the first two months of the loan periods.

	Payment	Interest	Principal	Remaining Balance
1st Month	$1,156.28	$ 685.00	$ 471.28	$136,528.72
2nd Month	$1,156.28	$ 682.64	$ 473.64	$136,055.08

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3. What was the interest rate charged if a $65,000 loan paid off with $71,360 after one year?

71,360 – 65,000 = 6,360 (interest – one year)
P = ? W = ? R = ?

6,360 ÷ 65,000 = .0978 or 9.78% interest
  P   W   Rate

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4. How much was borrowed if the interest at ten percent came to $22,900 in fifteen months?

$22,900.00 /15= 1,526.67

$1,526.67 x 12 = $18,320.04

$18,320   .10 $183,200
    P   R   W

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5. What is the interest on $120,000 at six & one-half percent (6.5%) interest for two years, eight months and fifteen days? (Simple Interest)

120000 x .065 = 7800

7800 x 2 years = 15600
7800 ÷ 12 = 650 * 8 months = 5200
650 ÷ 30 = 21.67 * 15 days = 325.05
15600 + 5200 + 325.05 = 21,125.05

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6. Mr. Jones has decided to sell his house and move to a condominium. He finds a buyer who offers to pay $39,750 as a down payment on the agreed purchase price of $189,250. The buyer is to get a mortgage for the balance amortized at 6.5% interest for twenty-five years, in equal monthly payments, including principal and interest.

a. What is the loan to value ratio?

$$\frac{149,500}{189,250}$$ = .79 (79%)

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6. Mr. Jones has decided to sell his house and move to a condominium. He finds a buyer who offers to pay $39,750 as a down payment on the agreed purchase price of $189,250. The buyer is to get a mortgage for the balance amortized at 6.5% interest for twenty-five years, in equal monthly payments, including principal and interest.

b. What is the original balance on the mortgage?

189,250 – 39,750 = 149,500

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6. Mr. Jones has decided to sell his house and move to a condominium. He finds a buyer who offers to pay $39,750 as a down payment on the agreed purchase price of $189,250. The buyer is to get a mortgage for the balance amortized at 6.5% interest for twenty-five years, in equal monthly payments, including principal and interest.

c. What is the monthly payment necessary to amortize the loan?

$1,009.13

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6. Mr. Jones has decided to sell his house and move to a condominium. He finds a buyer who offers to pay $39,750 as a down payment on the agreed purchase price of $189,250. The buyer is to get a mortgage for the balance amortized at 6.5% interest for twenty-five years, in equal monthly payments, including principal and interest.

d. How much of the first payment would be interest?

$189,250 - $39,750 = $149,500

.065 annual rate ÷ 12months = .00542

.00542 * $149,500 = $809.79

> HP With the Loan Entered:
> Keystrokes:
> 1 Input Key
> 1 Shift Key FV Amort
> Press = Key
> Interest -809.79

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7. The original mortgage loan was $187,000 for twenty years at seven (7%) percent interest

a. What are the monthly payments?

$1,449.25

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7. The original mortgage loan was $187,000 for twenty years at seven (7%) percent interest

   b. What is the principal balance on the loan at the start of the 12th year?

   $115,927

   > **HP With the Loan Entered:**
   > **Keystrokes:**
   > **132 Input Key**
   > **132 Shift Key FV Amort**
   > **Press = Key**
   > **Balance 115926.52**

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7. The original mortgage loan was $187,000 for twenty years at seven (7%) percent interest

   c. How much total interest would be paid when the loan pays off in 20 years?

   $1,449.25 * 12 = $17,391.00
   $17,391.00 * 20 = $347,820.00

   $347,820 - $187,000 = $160, 820

   > **HP With the Loan Entered**
   > **Keystrokes:**
   > **1 Input Key**
   > **240 Shift Key FV Amort**
   > **Press = Key**
   > **Interest -160954.40**

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8. As a real estate agent, you have a client (Mr. Jones) that you are helping to find a house. Through interview, you determine that Mr. Jones can afford a monthly payment up to $1,225.00 for PITI. He has approximately $12,500 cash available for a down payment, in addition to anticipated closing costs. You estimate that in your community the combined expense for taxes and insurance approximate twenty percent of the total monthly PITI payments. Present market conditions in your community indicate an interest rate of six & one-half percent (6.5%) on conventional loans, on a twenty-five year term. (Note PITI = principal, interest, taxes, & insurance). Using these factors determine the maximum loan Mr. Jones can afford on this basis, and the maximum price he could afford to pay for a home on these terms.

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1,225 (PITI) * 20% = $245

1,225 − 245 = $980 maximum monthly payment

$980 Pmt at 6.5% For 25 Years Figure for Loan

Loan = $145,141

**HP
Keystrokes:
980 Pmt
6.5 I/YR
25 Shift Key N**

**Press PV
-145141**

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