



UNIT 6

UNDERSTANDING MORTGAGES

A **mortgage** is a long-term lending arrangement that requires the borrower to make periodic payments to the lender. The borrower commits to (usually) monthly payments on the mortgage, and the lender keeps **title** to the property as **collateral** in case the borrower defaults on the loan.

Mortgages come in a variety of shapes and sizes, but they all have several things in common. First, the borrower will make periodic payments until the loan is fully paid off. Second, the size of the mortgage payment is designed to (1) be large enough to cover interest payments on the **principal**, or the amount borrowed, and (2) reduce the amount of the principal. Some mortgages are relatively straightforward, such as the **fixed-rate mortgage**, which has equal size payments over the course of the loan. Other mortgages are called **variable-rate mortgages**, and have a payment that changes as interest rates change.

In this unit, students will discover how the initial monthly payment is determined by the lender. They will then examine the way in which the **duration**, or length of the mortgage, affects the total amount of payments the borrower will make to the lender over the course of the loan. In the end, the student will have a better understanding of the mortgage and the importance of the length of the mortgage.

Student Learning Objectives:

- Students will learn how lenders determine the size of the monthly mortgage payments.
- Students will complete an activity that requires them to compute a hypothetical mortgage payment.
- Students will understand the importance of selecting the duration, or length, of a standard fixed-rate mortgage.

Key Concepts:

mortgage

principal

variable rate mortgage

collateral

fixed-rate mortgage

title

duration

LESSON 6-1: DETERMINING THE MONTHLY PAYMENT

In the previous unit, we saw how a person's income and debt levels determine the total, or maximum, amount of money that can be borrowed from the lender. The next task is for the lender to determine the size of the payment needed to repay the loan—a payment large enough to both cover interest on the borrowed money and to (usually) reduce the amount borrowed with every payment.

The computations may look difficult at first, but students will soon discover that the computations are within their grasp.

Materials Needed:

- At least one copy of *Activity Sheet 6-1: Computing the Mortgage Payment* for each student.
- *Figure 6-1* transparency or PowerPoint presentation file.

Teaching the Lesson:

1. Lenders use a relatively simple method to compute the size of the periodic payment—which is usually done monthly but can be done bi-monthly as well. In short, simply divide the total amount borrowed by an equation known as a *present value interest annuity factor*, or PVIAF. The PVIAF is a relatively simple equation that makes use of two things: the number of periodic payments in the mortgage, and the interest rate agreed to in the mortgage.

For example, suppose that someone borrows a certain sum for 30 years at a 6 percent annual rate of interest. If payments are made monthly, then there are 360 (or 30 years times 12 months) payments to make. Likewise the interest on each monthly payment is $\frac{1}{2}$ of one percent (or $.06/12$ months = 0.005). Once these two numbers are determined, we find the value of the PVAIF, and then divide it into the amount that was borrowed.

While this may seem complicated at first, the computations are really quite simple. Also, the very same equation for the PVIAF is used regardless of the number of years or the size of the interest rate.

2. *Figure 6-1* illustrates how the size of the monthly mortgage payment is computed. The figure also assumes the 6 percent annual interest and 360 monthly payments (30-year loan) discussed above. The first step is to compute the denominator of the equation, and then divide the PVIAF into the principal to get the monthly payment. Students may need to be reminded that interest payments must be converted to decimals.

Figure 6-1
The Monthly Mortgage Payment

$$\text{Monthly Payment} = \frac{\text{Principal}}{\text{PVIAF}}$$

$$\text{Monthly Payment} = \frac{\$100,000}{\left[\frac{1 - \frac{1}{(1+r)^n}}{r} \right]} = \frac{\$100,000}{\left[\frac{1 - \frac{1}{(1+.005)^{360}}}{.005} \right]}$$

$$\text{Monthly Payment} = \frac{\$100,000}{166.7916} = \$599.55$$

Where:

Principal = \$100,000

r = 6% annual interest paid monthly = .06/12 = .005

n = number of payments = (30 years)(12 months) = 360

After you have reviewed *Figure 6-1* with the students, you may want to illustrate the computations using numbers from the first three columns of the table below. The value for the PVIAF and the solution are also shown:

| Principal/Frequency | Interest | Years /Pmts | Decimal Equivalent | PVIAF | Payment |
|---------------------|------------|-------------|--------------------|--------|------------|
| \$100,000/monthly | 8% annual | 30/360 | .08/12 = 0.00667 | 136.28 | \$733.76 |
| \$150,000/monthly | 12% annual | 25/300 | .12/12 = 0.01000 | 94.95 | \$1,579.84 |
| \$200,000/monthly | 6% annual | 20/240 | .06/12 = 0.00500 | 139.58 | \$1,432.86 |
| \$100,000/bi-weekly | 6% annual | 30/780 | .06/26 = 0.02307 | 195.91 | \$510.43 |
| \$100,000/quarterly | 6% annual | 20/80 | .06/4 = 0.01500 | 46.41 | \$2,154.83 |

- Tell students that they are going to compute the actual payment on a typical mortgage, and then distribute *Activity Sheet 6-1: Computing Your Mortgage Payment*. Note that while the activity sheet does not

specify the amount borrowed, the interest rate, nor the length of the loan, you can use any values for these variables. Depending on the ability level of your students, you may want to assign values from the above table, assign values from the five mortgage payment tables in this lesson, or let them select values on their own.

Debriefing the Lesson

Students will probably wonder why it is necessary to understand how the periodic mortgage payment is made. The answer is that an understanding of this topic will help them pick the type of loan they may get later on. They will also discover, although not until the next lesson, that some mortgages will cost them much more than others in terms of total payments made to the lender.

There are several places where students might have difficulty in this lesson. For one, interest rates must be properly converted to decimals. For another, the equation must be solved in the proper sequence, starting with the numerator part of the denominator. Third, have students write down every step as they do it, rather than have them try to do all of the steps at one time. Otherwise, the computation is straightforward.

As an extension of the lesson, you might ask them to try to verify the size of their parent's mortgage payment, should they have one.

LESSON 6-2: CHOOSING THE LENGTH OF YOUR MORTGAGE

Many people think that the standard 30-year monthly mortgage is the best (or perhaps the only) option for them. People also tend to think that longer mortgages are better because the monthly payment is significantly lower.

Both of the propositions are not always true, as there may be times when shorter mortgages are more appropriate. For example, if a family wants to have the house paid off before one of the children goes to college, then a 20-year mortgage may be more appropriate than a 30-year mortgage. Alternatively, some lenders are now offering mortgages that require payments every two weeks, rather than monthly.

Interest rates, of course, are still one of the primary determinants of the cost of a mortgage. However, interest rates are also largely fixed at any given time, so the borrower may not have as much flexibility with this aspect of the mortgage as they would like. In any case, the borrower should pay particular attention to the duration of the mortgage and the frequency of the mortgage payments, which is the focus of the lesson. These factors will become evident when student realize the amount of money they will eventually end up repaying the lender.

This lesson assumes that students know how to compute the size of the periodic—usually monthly—mortgage payment (if they do not, have them review the problems in Unit 5). They will be asked to consider a typical mortgage loan that they might want to make, and then examine several alternative durations.

 **Materials Needed:**

- At least one copy of *Activity Sheet 6-2: Choosing the Length of Your Mortgage* for each student.

 **Teaching the Lesson:**

1. Distribute one copy of *Activity Sheet 6-2: Choosing the Length of Your Mortgage* to everyone in class.
2. Next, have the students answer Question 1 (shown below) by filling in the blanks. (*NOTE: The amount that they want to borrow and the interest rate they select are not important, as the object of this lesson is to have them re-think the first choice that comes to mind.*) A sample answer might appear as follows:

My mortgage is for an amount of **\$150,000**, at an annual interest rate of **8 percent**, for **30** years that will be paid **monthly**.

3. Have students compute the amount of the monthly payment and enter it in the bottom row of the table shown on the worksheet in the manner illustrated below (*the particular rate of interest selected is not important*):

Selecting the Duration of the Mortgage

| Mortgage Rate | Payment Size Given Mortgage Duration | | | | | |
|---------------|--------------------------------------|---------|---------|------------|---------|---------|
| | 15-year | 20-year | 25-year | 30-year | 35-year | 40-year |
| 8% | | | | \$1,100.65 | | |

4. People often think that they can substantially lower the size of the monthly payment by stretching out the length, or duration, of the mortgage. This is partially true, but not to the extent that most people imagine. To illustrate, step number 3 on the activity sheet asks students to fill in the remaining cells in the table in the manner shown below:

Selecting the Duration of the Mortgage

| Mortgage Rate | Payment Size Given Mortgage Duration | | | | | |
|---------------|--------------------------------------|------------|------------|------------|------------|------------|
| | 15-year | 20-year | 25-year | 30-year | 35-year | 40-year |
| 8% | \$1,433.48 | \$1,254.66 | \$1,157.72 | \$1,100.65 | \$1,065.39 | \$1,042.97 |

In this example, a person could reduce the monthly payment by \$35.26 if they added 5 years to the mortgage, or they could reduce the monthly payment by \$57.68 by adding 10 years to the mortgage.

5. The next step in the exercise is for students to find the total amount they would repay the lender under each of the mortgages listed in the table. To do so only requires that they enter the number of payments in the first column, the size of the payment in the second column, and then multiply the numbers in the two columns and record the answer in the last. A completed example using the numbers in this example would be as follows:

| Mortgage Duration | Number of Payments | Size of Payment | Total Amount Repaid |
|--------------------------|---------------------------|------------------------|----------------------------|
| 15-year | 180 | \$1,433.48 | \$258,026 |
| 20-year | 240 | \$1,254.66 | \$301,118 |
| 25-year | 300 | \$1,157.72 | \$347,316 |
| 30-year | 360 | \$1,100.65 | \$396,234 |
| 35-year | 420 | \$1,065.39 | \$447,464 |
| 40-year | 480 | \$1,042.97 | \$500,626 |

6. The final step in the activity asks the student to reconsider the initial choice (30 years in this example), in light of the total amount that will be repaid—an answer they can place on the back of the worksheet.

Debriefing the Lesson

Most people are usually surprised to discover that the choice of a longer mortgage does so little to lower the size of the monthly payment. The reason for this that interest makes up such a large part of each monthly mortgage payment. When the relatively small reduction in monthly payment is combined with 5 or 10 more years of monthly payments, the total amount repaid to the lender is even larger than before.

Another way to explain why the total amount repaid goes up as the mortgage gets longer is more intuitive: You pay interest on money whenever you borrow it, and the longer you borrow it the larger the amount of interest you will pay.

When students take these factors into consideration, most of them might decide to actually chose a shorter mortgage with a slightly higher monthly payment. In the example shown above, a 25-year mortgage (instead of the original 30-year mortgage) only adds \$57.07 to the monthly payment, but reduces the total amount paid to the bank by nearly \$50,000! Likewise, a 20-year mortgage adds \$154.01 to the monthly payment—but saves \$95,116 in interest payments because the money is borrowed for a shorter time.

The choice is really up to the borrower, but most borrowers don't really know what their options are unless they work through a short exercise like this. Finally, the appended mortgage payment tables can be used to verify the student's computations if you decide to grade the activity sheet.

UNIT RESOURCES:



Community Resources:

- Invite a loan officer from a local bank or savings and loan to talk about the application for mortgage loans.



Teacher Resources:

- Coulson, Elaine and Sarapage McCorkle. (1994). Personal Finance Economics: Wallet Wisdom. New York: EconomicsAmerica, National Council on Economic Education. Interdisciplinary unit consisting of a teacher resource manual, activity pages, and blackline master forms. Available from the Kentucky Council on Economic Education.
- Opening the Door To a Home of Your Own. Useful booklet from the Fannie Mae Foundation discussing topics related to the financing, personal credit history, and the affordability of mortgage payments.



World Wide Web Resources:

<http://ecedweb.unomaha.edu/> Comprehensive economic education website listing resources for teaching economics at the K-12 level

<http://www.consumercredit.com/> The American Consumer Credit Counseling non-profit organization. Site features consumer information about credit, budgeting, savings, and money management

<http://www.EconSources.com/> One of the best portals on the web for general economic information, sources

<http://www.kiplinger.com/> Kiplinger's Personal Finance web page includes information on saving and borrowing, kids and money, spending, and other personal finance information

<http://www.pbs.org/moneymoves/> The Official Money Moves Home Page from PBS features hot topics, inside Money Moves, money facts, and archives of previous hot topics including financial planning, building a nest egg, buying vs. renting, buying a home online, home renovations, money and ethics

Table 6-1a
Finding the Monthly Mortgage Payment
Amount Borrowed = \$100,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 1,060.66 | 790.79 | 659.96 | 584.59 | 536.82 | 504.69 | 482.20 |
| 5.25% | 1,072.92 | 803.88 | 673.84 | 599.25 | 552.20 | 520.74 | 498.87 |
| 5.50% | 1,085.26 | 817.08 | 687.89 | 614.09 | 567.79 | 537.02 | 515.77 |
| 5.75% | 1,097.69 | 830.41 | 702.08 | 629.11 | 583.57 | 553.50 | 532.89 |
| 6.00% | 1,110.21 | 843.86 | 716.43 | 644.30 | 599.55 | 570.19 | 550.21 |
| 6.25% | 1,122.80 | 857.42 | 730.93 | 659.67 | 615.72 | 587.08 | 567.74 |
| 6.50% | 1,135.48 | 871.11 | 745.57 | 675.21 | 632.07 | 604.15 | 585.46 |
| 6.75% | 1,148.24 | 884.91 | 760.36 | 690.91 | 648.60 | 621.42 | 603.36 |
| 7.00% | 1,161.08 | 898.83 | 775.30 | 706.78 | 665.30 | 638.86 | 621.43 |
| 7.25% | 1,174.01 | 912.86 | 790.38 | 722.81 | 682.18 | 656.47 | 639.67 |
| 7.50% | 1,187.02 | 927.01 | 805.59 | 738.99 | 699.21 | 674.24 | 658.07 |
| 7.75% | 1,200.11 | 941.28 | 820.95 | 755.33 | 716.41 | 692.18 | 676.62 |
| 8.00% | 1,213.28 | 955.65 | 836.44 | 771.82 | 733.76 | 710.26 | 695.31 |
| 8.25% | 1,226.53 | 970.14 | 852.07 | 788.45 | 751.27 | 728.49 | 714.14 |
| 8.50% | 1,239.86 | 984.74 | 867.82 | 805.23 | 768.91 | 746.86 | 733.09 |
| 8.75% | 1,253.27 | 999.45 | 883.71 | 822.14 | 786.70 | 765.36 | 752.17 |
| 9.00% | 1,266.76 | 1,014.27 | 899.73 | 839.20 | 804.62 | 783.99 | 771.36 |
| 9.25% | 1,280.33 | 1,029.19 | 915.87 | 856.38 | 822.68 | 802.74 | 790.66 |
| 9.50% | 1,293.98 | 1,044.22 | 932.13 | 873.70 | 840.85 | 821.61 | 810.06 |
| 9.75% | 1,307.70 | 1,059.36 | 948.52 | 891.14 | 859.15 | 840.59 | 829.56 |
| 10.00% | 1,321.51 | 1,074.61 | 965.02 | 908.70 | 877.57 | 859.67 | 849.15 |
| 10.25% | 1,335.39 | 1,089.95 | 981.64 | 926.38 | 896.10 | 878.86 | 868.82 |
| 10.50% | 1,349.35 | 1,105.40 | 998.38 | 944.18 | 914.74 | 898.13 | 888.57 |
| 10.75% | 1,363.39 | 1,120.95 | 1,015.23 | 962.09 | 933.48 | 917.50 | 908.40 |
| 11.00% | 1,377.50 | 1,136.60 | 1,032.19 | 980.11 | 952.32 | 936.96 | 928.29 |
| 11.25% | 1,391.69 | 1,152.34 | 1,049.26 | 998.24 | 971.26 | 956.49 | 948.26 |
| 11.50% | 1,405.95 | 1,168.19 | 1,066.43 | 1,016.47 | 990.29 | 976.11 | 968.28 |
| 11.75% | 1,420.29 | 1,184.13 | 1,083.71 | 1,034.80 | 1,009.41 | 995.79 | 988.36 |
| 12.00% | 1,434.71 | 1,200.17 | 1,101.09 | 1,053.22 | 1,028.61 | 1,015.55 | 1,008.50 |
| 12.25% | 1,449.20 | 1,216.30 | 1,118.56 | 1,071.74 | 1,047.90 | 1,035.37 | 1,028.69 |
| 12.50% | 1,463.76 | 1,232.52 | 1,136.14 | 1,090.35 | 1,067.26 | 1,055.25 | 1,048.92 |
| 12.75% | 1,478.40 | 1,248.84 | 1,153.81 | 1,109.05 | 1,086.69 | 1,075.20 | 1,069.20 |
| 13.00% | 1,493.11 | 1,265.24 | 1,171.58 | 1,127.84 | 1,106.20 | 1,095.19 | 1,089.51 |
| 13.25% | 1,507.89 | 1,281.74 | 1,189.43 | 1,146.70 | 1,125.77 | 1,115.24 | 1,109.87 |
| 13.50% | 1,522.74 | 1,298.32 | 1,207.37 | 1,165.64 | 1,145.41 | 1,135.34 | 1,130.26 |
| 13.75% | 1,537.67 | 1,314.99 | 1,225.41 | 1,184.67 | 1,165.11 | 1,155.49 | 1,150.69 |
| 14.00% | 1,552.66 | 1,331.74 | 1,243.52 | 1,203.76 | 1,184.87 | 1,175.67 | 1,171.14 |

Directions: To find the size of the monthly payment for a \$100,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$1,106.20. Payments for different mortgages can be found on other pages.

Table 6-1b
Finding the Monthly Mortgage Payment
Amount Borrowed = \$125,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 1,325.82 | 988.49 | 824.94 | 730.74 | 671.03 | 630.86 | 602.75 |
| 5.25% | 1,341.15 | 1,004.85 | 842.31 | 749.06 | 690.25 | 650.93 | 623.59 |
| 5.50% | 1,356.58 | 1,021.35 | 859.86 | 767.61 | 709.74 | 671.27 | 644.71 |
| 5.75% | 1,372.12 | 1,038.01 | 877.60 | 786.38 | 729.47 | 691.88 | 666.11 |
| 6.00% | 1,387.76 | 1,054.82 | 895.54 | 805.38 | 749.44 | 712.74 | 687.77 |
| 6.25% | 1,403.50 | 1,071.78 | 913.66 | 824.59 | 769.65 | 733.85 | 709.67 |
| 6.50% | 1,419.35 | 1,088.88 | 931.97 | 844.01 | 790.09 | 755.19 | 731.82 |
| 6.75% | 1,435.30 | 1,106.14 | 950.46 | 863.64 | 810.75 | 776.77 | 754.20 |
| 7.00% | 1,451.36 | 1,123.54 | 969.12 | 883.47 | 831.63 | 798.57 | 776.79 |
| 7.25% | 1,467.51 | 1,141.08 | 987.97 | 903.51 | 852.72 | 820.58 | 799.59 |
| 7.50% | 1,483.77 | 1,158.77 | 1,006.99 | 923.74 | 874.02 | 842.80 | 822.59 |
| 7.75% | 1,500.13 | 1,176.59 | 1,026.19 | 944.16 | 895.52 | 865.22 | 845.77 |
| 8.00% | 1,516.59 | 1,194.57 | 1,045.55 | 964.77 | 917.21 | 887.83 | 869.14 |
| 8.25% | 1,533.16 | 1,212.68 | 1,065.08 | 985.56 | 939.08 | 910.61 | 892.67 |
| 8.50% | 1,549.82 | 1,230.92 | 1,084.78 | 1,006.53 | 961.14 | 933.58 | 916.37 |
| 8.75% | 1,566.58 | 1,249.31 | 1,104.64 | 1,027.68 | 983.38 | 956.70 | 940.21 |
| 9.00% | 1,583.45 | 1,267.83 | 1,124.66 | 1,049.00 | 1,005.78 | 979.99 | 964.20 |
| 9.25% | 1,600.41 | 1,286.49 | 1,144.83 | 1,070.48 | 1,028.34 | 1,003.43 | 988.33 |
| 9.50% | 1,617.47 | 1,305.28 | 1,165.16 | 1,092.12 | 1,051.07 | 1,027.01 | 1,012.58 |
| 9.75% | 1,634.63 | 1,324.20 | 1,185.65 | 1,113.92 | 1,073.94 | 1,050.74 | 1,036.95 |
| 10.00% | 1,651.88 | 1,343.26 | 1,206.28 | 1,135.88 | 1,096.96 | 1,074.59 | 1,061.43 |
| 10.25% | 1,669.24 | 1,362.44 | 1,227.05 | 1,157.98 | 1,120.13 | 1,098.57 | 1,086.02 |
| 10.50% | 1,686.69 | 1,381.75 | 1,247.97 | 1,180.23 | 1,143.42 | 1,122.67 | 1,110.71 |
| 10.75% | 1,704.23 | 1,401.18 | 1,269.04 | 1,202.62 | 1,166.85 | 1,146.88 | 1,135.50 |
| 11.00% | 1,721.88 | 1,420.75 | 1,290.24 | 1,225.14 | 1,190.40 | 1,171.20 | 1,160.37 |
| 11.25% | 1,739.61 | 1,440.43 | 1,311.57 | 1,247.80 | 1,214.08 | 1,195.62 | 1,185.32 |
| 11.50% | 1,757.44 | 1,460.24 | 1,333.04 | 1,270.59 | 1,237.86 | 1,220.13 | 1,210.35 |
| 11.75% | 1,775.37 | 1,480.16 | 1,354.63 | 1,293.50 | 1,261.76 | 1,244.74 | 1,235.45 |
| 12.00% | 1,793.39 | 1,500.21 | 1,376.36 | 1,316.53 | 1,285.77 | 1,269.44 | 1,260.62 |
| 12.25% | 1,811.50 | 1,520.37 | 1,398.21 | 1,339.68 | 1,309.87 | 1,294.21 | 1,285.86 |
| 12.50% | 1,829.70 | 1,540.65 | 1,420.18 | 1,362.94 | 1,334.07 | 1,319.07 | 1,311.15 |
| 12.75% | 1,848.00 | 1,561.05 | 1,442.26 | 1,386.32 | 1,358.37 | 1,344.00 | 1,336.50 |
| 13.00% | 1,866.38 | 1,581.55 | 1,464.47 | 1,409.79 | 1,382.75 | 1,368.99 | 1,361.89 |
| 13.25% | 1,884.86 | 1,602.17 | 1,486.79 | 1,433.38 | 1,407.22 | 1,394.05 | 1,387.34 |
| 13.50% | 1,903.43 | 1,622.90 | 1,509.22 | 1,457.06 | 1,431.77 | 1,419.18 | 1,412.83 |
| 13.75% | 1,922.09 | 1,643.73 | 1,531.76 | 1,480.83 | 1,456.39 | 1,444.36 | 1,438.36 |
| 14.00% | 1,940.83 | 1,664.68 | 1,554.40 | 1,504.70 | 1,481.09 | 1,469.59 | 1,463.93 |

Directions: To find the size of the monthly payment for a \$125,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$1,382.75. Payments for different mortgages can be found on other pages.

Table 6-1c
Finding the Monthly Mortgage Payment
Amount Borrowed = \$150,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 1,590.98 | 1,186.19 | 989.93 | 876.89 | 805.23 | 757.03 | 723.29 |
| 5.25% | 1,609.38 | 1,205.82 | 1,010.77 | 898.87 | 828.31 | 781.11 | 748.31 |
| 5.50% | 1,627.89 | 1,225.63 | 1,031.83 | 921.13 | 851.68 | 805.52 | 773.66 |
| 5.75% | 1,646.54 | 1,245.62 | 1,053.13 | 943.66 | 875.36 | 830.25 | 799.33 |
| 6.00% | 1,665.31 | 1,265.79 | 1,074.65 | 966.45 | 899.33 | 855.28 | 825.32 |
| 6.25% | 1,684.20 | 1,286.13 | 1,096.39 | 989.50 | 923.58 | 880.61 | 851.61 |
| 6.50% | 1,703.22 | 1,306.66 | 1,118.36 | 1,012.81 | 948.10 | 906.23 | 878.19 |
| 6.75% | 1,722.36 | 1,327.36 | 1,140.55 | 1,036.37 | 972.90 | 932.12 | 905.04 |
| 7.00% | 1,741.63 | 1,348.24 | 1,162.95 | 1,060.17 | 997.95 | 958.28 | 932.15 |
| 7.25% | 1,761.02 | 1,369.29 | 1,185.56 | 1,084.21 | 1,023.26 | 984.70 | 959.51 |
| 7.50% | 1,780.53 | 1,390.52 | 1,208.39 | 1,108.49 | 1,048.82 | 1,011.36 | 987.11 |
| 7.75% | 1,800.16 | 1,411.91 | 1,231.42 | 1,132.99 | 1,074.62 | 1,038.26 | 1,014.93 |
| 8.00% | 1,819.91 | 1,433.48 | 1,254.66 | 1,157.72 | 1,100.65 | 1,065.39 | 1,042.97 |
| 8.25% | 1,839.79 | 1,455.21 | 1,278.10 | 1,182.68 | 1,126.90 | 1,092.74 | 1,071.21 |
| 8.50% | 1,859.79 | 1,477.11 | 1,301.73 | 1,207.84 | 1,153.37 | 1,120.29 | 1,099.64 |
| 8.75% | 1,879.90 | 1,499.17 | 1,325.57 | 1,233.22 | 1,180.05 | 1,148.04 | 1,128.26 |
| 9.00% | 1,900.14 | 1,521.40 | 1,349.59 | 1,258.79 | 1,206.93 | 1,175.99 | 1,157.04 |
| 9.25% | 1,920.49 | 1,543.79 | 1,373.80 | 1,284.57 | 1,234.01 | 1,204.12 | 1,185.99 |
| 9.50% | 1,940.96 | 1,566.34 | 1,398.20 | 1,310.54 | 1,261.28 | 1,232.42 | 1,215.09 |
| 9.75% | 1,961.55 | 1,589.04 | 1,422.78 | 1,336.71 | 1,288.73 | 1,260.88 | 1,244.34 |
| 10.00% | 1,982.26 | 1,611.91 | 1,447.53 | 1,363.05 | 1,316.36 | 1,289.51 | 1,273.72 |
| 10.25% | 2,003.09 | 1,634.93 | 1,472.47 | 1,389.57 | 1,344.15 | 1,318.28 | 1,303.23 |
| 10.50% | 2,024.02 | 1,658.10 | 1,497.57 | 1,416.27 | 1,372.11 | 1,347.20 | 1,332.86 |
| 10.75% | 2,045.08 | 1,681.42 | 1,522.84 | 1,443.14 | 1,400.22 | 1,376.25 | 1,362.60 |
| 11.00% | 2,066.25 | 1,704.90 | 1,548.28 | 1,470.17 | 1,428.49 | 1,405.44 | 1,392.44 |
| 11.25% | 2,087.53 | 1,728.52 | 1,573.88 | 1,497.36 | 1,456.89 | 1,434.74 | 1,422.39 |
| 11.50% | 2,108.93 | 1,752.28 | 1,599.64 | 1,524.70 | 1,485.44 | 1,464.16 | 1,452.42 |
| 11.75% | 2,130.44 | 1,776.20 | 1,625.56 | 1,552.20 | 1,514.11 | 1,493.69 | 1,482.55 |
| 12.00% | 2,152.06 | 1,800.25 | 1,651.63 | 1,579.84 | 1,542.92 | 1,523.32 | 1,512.75 |
| 12.25% | 2,173.80 | 1,824.45 | 1,677.85 | 1,607.62 | 1,571.84 | 1,553.06 | 1,543.03 |
| 12.50% | 2,195.64 | 1,848.78 | 1,704.21 | 1,635.53 | 1,600.89 | 1,582.88 | 1,573.38 |
| 12.75% | 2,217.60 | 1,873.26 | 1,730.72 | 1,663.58 | 1,630.04 | 1,612.79 | 1,603.79 |
| 13.00% | 2,239.66 | 1,897.86 | 1,757.36 | 1,691.75 | 1,659.30 | 1,642.79 | 1,634.27 |
| 13.25% | 2,261.83 | 1,922.60 | 1,784.15 | 1,720.05 | 1,688.66 | 1,672.86 | 1,664.80 |
| 13.50% | 2,284.11 | 1,947.48 | 1,811.06 | 1,748.47 | 1,718.12 | 1,703.01 | 1,695.39 |
| 13.75% | 2,306.50 | 1,972.48 | 1,838.11 | 1,777.00 | 1,747.67 | 1,733.23 | 1,726.03 |
| 14.00% | 2,329.00 | 1,997.61 | 1,865.28 | 1,805.64 | 1,777.31 | 1,763.51 | 1,756.71 |

Directions: To find the size of the monthly payment for a \$150,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$1,659.30. Payments for different mortgages can be found on other pages.

Table 6-1d
Finding the Monthly Mortgage Payment
Amount Borrowed = \$175,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 1,856.15 | 1,383.89 | 1,154.92 | 1,023.03 | 939.44 | 883.20 | 843.84 |
| 5.25% | 1,877.60 | 1,406.79 | 1,179.23 | 1,048.68 | 966.36 | 911.30 | 873.02 |
| 5.50% | 1,899.21 | 1,429.90 | 1,203.80 | 1,074.65 | 993.63 | 939.78 | 902.60 |
| 5.75% | 1,920.96 | 1,453.22 | 1,228.65 | 1,100.94 | 1,021.25 | 968.63 | 932.55 |
| 6.00% | 1,942.86 | 1,476.75 | 1,253.75 | 1,127.53 | 1,049.21 | 997.83 | 962.87 |
| 6.25% | 1,964.90 | 1,500.49 | 1,279.12 | 1,154.42 | 1,077.51 | 1,027.38 | 993.54 |
| 6.50% | 1,987.09 | 1,524.44 | 1,304.75 | 1,181.61 | 1,106.12 | 1,057.27 | 1,024.55 |
| 6.75% | 2,009.42 | 1,548.59 | 1,330.64 | 1,209.10 | 1,135.05 | 1,087.48 | 1,055.87 |
| 7.00% | 2,031.90 | 1,572.95 | 1,356.77 | 1,236.86 | 1,164.28 | 1,118.00 | 1,087.50 |
| 7.25% | 2,054.52 | 1,597.51 | 1,383.16 | 1,264.91 | 1,193.81 | 1,148.82 | 1,119.43 |
| 7.50% | 2,077.28 | 1,622.27 | 1,409.79 | 1,293.23 | 1,223.63 | 1,179.92 | 1,151.62 |
| 7.75% | 2,100.19 | 1,647.23 | 1,436.66 | 1,321.83 | 1,253.72 | 1,211.31 | 1,184.08 |
| 8.00% | 2,123.23 | 1,672.39 | 1,463.77 | 1,350.68 | 1,284.09 | 1,242.96 | 1,216.80 |
| 8.25% | 2,146.42 | 1,697.75 | 1,491.11 | 1,379.79 | 1,314.72 | 1,274.86 | 1,249.74 |
| 8.50% | 2,169.75 | 1,723.29 | 1,518.69 | 1,409.15 | 1,345.60 | 1,307.01 | 1,282.91 |
| 8.75% | 2,193.22 | 1,749.04 | 1,546.49 | 1,438.75 | 1,376.73 | 1,339.39 | 1,316.30 |
| 9.00% | 2,216.83 | 1,774.97 | 1,574.52 | 1,468.59 | 1,408.09 | 1,371.99 | 1,349.88 |
| 9.25% | 2,240.57 | 1,801.09 | 1,602.77 | 1,498.67 | 1,439.68 | 1,404.80 | 1,383.66 |
| 9.50% | 2,264.46 | 1,827.39 | 1,631.23 | 1,528.97 | 1,471.49 | 1,437.82 | 1,417.61 |
| 9.75% | 2,288.48 | 1,853.88 | 1,659.90 | 1,559.49 | 1,503.52 | 1,471.03 | 1,451.73 |
| 10.00% | 2,312.64 | 1,880.56 | 1,688.79 | 1,590.23 | 1,535.75 | 1,504.43 | 1,486.01 |
| 10.25% | 2,336.93 | 1,907.41 | 1,717.88 | 1,621.17 | 1,568.18 | 1,538.00 | 1,520.43 |
| 10.50% | 2,361.36 | 1,934.45 | 1,747.16 | 1,652.32 | 1,600.79 | 1,571.73 | 1,555.00 |
| 10.75% | 2,385.93 | 1,961.66 | 1,776.65 | 1,683.66 | 1,633.59 | 1,605.63 | 1,589.70 |
| 11.00% | 2,410.63 | 1,989.04 | 1,806.33 | 1,715.20 | 1,666.57 | 1,639.68 | 1,624.52 |
| 11.25% | 2,435.46 | 2,016.60 | 1,836.20 | 1,746.92 | 1,699.71 | 1,673.86 | 1,659.45 |
| 11.50% | 2,460.42 | 2,044.33 | 1,866.25 | 1,778.82 | 1,733.01 | 1,708.19 | 1,694.49 |
| 11.75% | 2,485.52 | 2,072.23 | 1,896.49 | 1,810.90 | 1,766.47 | 1,742.64 | 1,729.64 |
| 12.00% | 2,510.74 | 2,100.29 | 1,926.90 | 1,843.14 | 1,800.07 | 1,777.21 | 1,764.87 |
| 12.25% | 2,536.10 | 2,128.52 | 1,957.49 | 1,875.55 | 1,833.82 | 1,811.90 | 1,800.20 |
| 12.50% | 2,561.58 | 2,156.91 | 1,988.25 | 1,908.12 | 1,867.70 | 1,846.70 | 1,835.61 |
| 12.75% | 2,587.20 | 2,185.46 | 2,019.17 | 1,940.84 | 1,901.71 | 1,881.59 | 1,871.09 |
| 13.00% | 2,612.94 | 2,214.17 | 2,050.26 | 1,973.71 | 1,935.85 | 1,916.59 | 1,906.65 |
| 13.25% | 2,638.81 | 2,243.04 | 2,081.50 | 2,006.73 | 1,970.10 | 1,951.67 | 1,942.27 |
| 13.50% | 2,664.80 | 2,272.06 | 2,112.91 | 2,039.88 | 2,004.47 | 1,986.85 | 1,977.96 |
| 13.75% | 2,690.92 | 2,301.23 | 2,144.46 | 2,073.17 | 2,038.95 | 2,022.10 | 2,013.70 |
| 14.00% | 2,717.16 | 2,330.55 | 2,176.16 | 2,106.58 | 2,073.53 | 2,057.43 | 2,049.50 |

Directions: To find the size of the monthly payment for a \$175,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$1,935.85. Payments for different mortgages can be found on other pages.

Table 6-1e
Finding the Monthly Mortgage Payment
Amount Borrowed = \$200,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 2,121.31 | 1,581.59 | 1,319.91 | 1,169.18 | 1,073.64 | 1,009.38 | 964.39 |
| 5.25% | 2,145.83 | 1,607.76 | 1,347.69 | 1,198.50 | 1,104.41 | 1,041.49 | 997.74 |
| 5.50% | 2,170.53 | 1,634.17 | 1,375.77 | 1,228.17 | 1,135.58 | 1,074.03 | 1,031.54 |
| 5.75% | 2,195.38 | 1,660.82 | 1,404.17 | 1,258.21 | 1,167.15 | 1,107.00 | 1,065.78 |
| 6.00% | 2,220.41 | 1,687.71 | 1,432.86 | 1,288.60 | 1,199.10 | 1,140.38 | 1,100.43 |
| 6.25% | 2,245.60 | 1,714.85 | 1,461.86 | 1,319.34 | 1,231.43 | 1,174.15 | 1,135.48 |
| 6.50% | 2,270.96 | 1,742.21 | 1,491.15 | 1,350.41 | 1,264.14 | 1,208.31 | 1,170.91 |
| 6.75% | 2,296.48 | 1,769.82 | 1,520.73 | 1,381.82 | 1,297.20 | 1,242.83 | 1,206.71 |
| 7.00% | 2,322.17 | 1,797.66 | 1,550.60 | 1,413.56 | 1,330.60 | 1,277.71 | 1,242.86 |
| 7.25% | 2,348.02 | 1,825.73 | 1,580.75 | 1,445.61 | 1,364.35 | 1,312.93 | 1,279.34 |
| 7.50% | 2,374.04 | 1,854.02 | 1,611.19 | 1,477.98 | 1,398.43 | 1,348.49 | 1,316.14 |
| 7.75% | 2,400.21 | 1,882.55 | 1,641.90 | 1,510.66 | 1,432.82 | 1,384.35 | 1,353.24 |
| 8.00% | 2,426.55 | 1,911.30 | 1,672.88 | 1,543.63 | 1,467.53 | 1,420.52 | 1,390.62 |
| 8.25% | 2,453.05 | 1,940.28 | 1,704.13 | 1,576.90 | 1,502.53 | 1,456.98 | 1,428.28 |
| 8.50% | 2,479.71 | 1,969.48 | 1,735.65 | 1,610.45 | 1,537.83 | 1,493.72 | 1,466.19 |
| 8.75% | 2,506.54 | 1,998.90 | 1,767.42 | 1,644.29 | 1,573.40 | 1,530.73 | 1,504.34 |
| 9.00% | 2,533.52 | 2,028.53 | 1,799.45 | 1,678.39 | 1,609.25 | 1,567.99 | 1,542.72 |
| 9.25% | 2,560.65 | 2,058.38 | 1,831.73 | 1,712.76 | 1,645.35 | 1,605.49 | 1,581.32 |
| 9.50% | 2,587.95 | 2,088.45 | 1,864.26 | 1,747.39 | 1,681.71 | 1,643.22 | 1,620.12 |
| 9.75% | 2,615.40 | 2,118.73 | 1,897.03 | 1,782.27 | 1,718.31 | 1,681.18 | 1,659.12 |
| 10.00% | 2,643.01 | 2,149.21 | 1,930.04 | 1,817.40 | 1,755.14 | 1,719.34 | 1,698.29 |
| 10.25% | 2,670.78 | 2,179.90 | 1,963.29 | 1,852.77 | 1,792.20 | 1,757.71 | 1,737.64 |
| 10.50% | 2,698.70 | 2,210.80 | 1,996.76 | 1,888.36 | 1,829.48 | 1,796.27 | 1,777.14 |
| 10.75% | 2,726.77 | 2,241.90 | 2,030.46 | 1,924.19 | 1,866.96 | 1,835.01 | 1,816.79 |
| 11.00% | 2,755.00 | 2,273.19 | 2,064.38 | 1,960.23 | 1,904.65 | 1,873.92 | 1,856.59 |
| 11.25% | 2,783.38 | 2,304.69 | 2,098.51 | 1,996.48 | 1,942.52 | 1,912.99 | 1,896.51 |
| 11.50% | 2,811.91 | 2,336.38 | 2,132.86 | 2,032.94 | 1,980.58 | 1,952.21 | 1,936.56 |
| 11.75% | 2,840.59 | 2,368.26 | 2,167.41 | 2,069.60 | 2,018.82 | 1,991.59 | 1,976.73 |
| 12.00% | 2,869.42 | 2,400.34 | 2,202.17 | 2,106.45 | 2,057.23 | 2,031.10 | 2,017.00 |
| 12.25% | 2,898.40 | 2,432.60 | 2,237.13 | 2,143.49 | 2,095.79 | 2,070.74 | 2,057.37 |
| 12.50% | 2,927.52 | 2,465.04 | 2,272.28 | 2,180.71 | 2,134.52 | 2,110.51 | 2,097.84 |
| 12.75% | 2,956.80 | 2,497.67 | 2,307.62 | 2,218.10 | 2,173.39 | 2,150.39 | 2,138.39 |
| 13.00% | 2,986.21 | 2,530.48 | 2,343.15 | 2,255.67 | 2,212.40 | 2,190.39 | 2,179.03 |
| 13.25% | 3,015.78 | 2,563.47 | 2,378.86 | 2,293.40 | 2,251.55 | 2,230.48 | 2,219.74 |
| 13.50% | 3,045.49 | 2,596.64 | 2,414.75 | 2,331.29 | 2,290.82 | 2,270.68 | 2,260.52 |
| 13.75% | 3,075.34 | 2,629.97 | 2,450.81 | 2,369.33 | 2,330.23 | 2,310.97 | 2,301.37 |
| 14.00% | 3,105.33 | 2,663.48 | 2,487.04 | 2,407.52 | 2,369.74 | 2,351.35 | 2,342.28 |

Directions: To find the size of the monthly payment for a \$200,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$2,212.40. Payments for different mortgages can be found on other pages.

Table 6-1f
Finding the Monthly Mortgage Payment
Amount Borrowed = \$225,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 2,386.47 | 1,779.29 | 1,484.90 | 1,315.33 | 1,207.85 | 1,135.55 | 1,084.94 |
| 5.25% | 2,414.06 | 1,808.72 | 1,516.15 | 1,348.31 | 1,242.46 | 1,171.67 | 1,122.46 |
| 5.50% | 2,441.84 | 1,838.44 | 1,547.75 | 1,381.70 | 1,277.53 | 1,208.29 | 1,160.48 |
| 5.75% | 2,469.81 | 1,868.42 | 1,579.69 | 1,415.49 | 1,313.04 | 1,245.38 | 1,199.00 |
| 6.00% | 2,497.96 | 1,898.68 | 1,611.97 | 1,449.68 | 1,348.99 | 1,282.93 | 1,237.98 |
| 6.25% | 2,526.30 | 1,929.20 | 1,644.59 | 1,484.26 | 1,385.36 | 1,320.92 | 1,277.41 |
| 6.50% | 2,554.83 | 1,959.99 | 1,677.54 | 1,519.22 | 1,422.15 | 1,359.35 | 1,317.28 |
| 6.75% | 2,583.54 | 1,991.05 | 1,710.82 | 1,554.55 | 1,459.35 | 1,398.19 | 1,357.55 |
| 7.00% | 2,612.44 | 2,022.36 | 1,744.42 | 1,590.25 | 1,496.93 | 1,437.43 | 1,398.22 |
| 7.25% | 2,641.52 | 2,053.94 | 1,778.35 | 1,626.32 | 1,534.90 | 1,477.05 | 1,439.26 |
| 7.50% | 2,670.79 | 2,085.78 | 1,812.58 | 1,662.73 | 1,573.23 | 1,517.05 | 1,480.66 |
| 7.75% | 2,700.24 | 2,117.87 | 1,847.13 | 1,699.49 | 1,611.93 | 1,557.40 | 1,522.39 |
| 8.00% | 2,729.87 | 2,150.22 | 1,881.99 | 1,736.59 | 1,650.97 | 1,598.09 | 1,564.45 |
| 8.25% | 2,759.68 | 2,182.82 | 1,917.15 | 1,774.01 | 1,690.35 | 1,639.11 | 1,606.81 |
| 8.50% | 2,789.68 | 2,215.66 | 1,952.60 | 1,811.76 | 1,730.06 | 1,680.44 | 1,649.46 |
| 8.75% | 2,819.85 | 2,248.76 | 1,988.35 | 1,849.82 | 1,770.08 | 1,722.07 | 1,692.38 |
| 9.00% | 2,850.20 | 2,282.10 | 2,024.38 | 1,888.19 | 1,810.40 | 1,763.98 | 1,735.56 |
| 9.25% | 2,880.74 | 2,315.68 | 2,060.70 | 1,926.86 | 1,851.02 | 1,806.17 | 1,778.99 |
| 9.50% | 2,911.45 | 2,349.51 | 2,097.30 | 1,965.82 | 1,891.92 | 1,848.63 | 1,822.64 |
| 9.75% | 2,942.33 | 2,383.57 | 2,134.16 | 2,005.06 | 1,933.10 | 1,891.33 | 1,866.51 |
| 10.00% | 2,973.39 | 2,417.86 | 2,171.30 | 2,044.58 | 1,974.54 | 1,934.26 | 1,910.58 |
| 10.25% | 3,004.63 | 2,452.39 | 2,208.70 | 2,084.36 | 2,016.23 | 1,977.43 | 1,954.84 |
| 10.50% | 3,036.04 | 2,487.15 | 2,246.35 | 2,124.41 | 2,058.16 | 2,020.80 | 1,999.28 |
| 10.75% | 3,067.62 | 2,522.13 | 2,284.27 | 2,164.71 | 2,100.33 | 2,064.38 | 2,043.89 |
| 11.00% | 3,099.38 | 2,557.34 | 2,322.42 | 2,205.25 | 2,142.73 | 2,108.15 | 2,088.66 |
| 11.25% | 3,131.30 | 2,592.78 | 2,360.83 | 2,246.04 | 2,185.34 | 2,152.11 | 2,133.58 |
| 11.50% | 3,163.40 | 2,628.43 | 2,399.47 | 2,287.06 | 2,228.16 | 2,196.24 | 2,178.63 |
| 11.75% | 3,195.66 | 2,664.30 | 2,438.34 | 2,328.30 | 2,271.17 | 2,240.54 | 2,223.82 |
| 12.00% | 3,228.10 | 2,700.38 | 2,477.44 | 2,369.75 | 2,314.38 | 2,284.99 | 2,269.12 |
| 12.25% | 3,260.70 | 2,736.67 | 2,516.77 | 2,411.42 | 2,357.77 | 2,329.59 | 2,314.54 |
| 12.50% | 3,293.46 | 2,773.17 | 2,556.32 | 2,453.30 | 2,401.33 | 2,374.32 | 2,360.07 |
| 12.75% | 3,326.40 | 2,809.88 | 2,596.08 | 2,495.37 | 2,445.06 | 2,419.19 | 2,405.69 |
| 13.00% | 3,359.49 | 2,846.79 | 2,636.05 | 2,537.63 | 2,488.95 | 2,464.18 | 2,451.41 |
| 13.25% | 3,392.75 | 2,883.91 | 2,676.22 | 2,580.08 | 2,532.99 | 2,509.30 | 2,497.21 |
| 13.50% | 3,426.17 | 2,921.22 | 2,716.59 | 2,622.70 | 2,577.18 | 2,554.52 | 2,543.09 |
| 13.75% | 3,459.75 | 2,958.72 | 2,757.16 | 2,665.50 | 2,621.50 | 2,599.84 | 2,589.04 |
| 14.00% | 3,493.49 | 2,996.42 | 2,797.92 | 2,708.46 | 2,665.96 | 2,645.26 | 2,635.07 |

Directions: To find the size of the monthly payment for a \$225,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$2,488.95. Payments for different mortgages can be found on other pages.

Table 6-1g
Finding the Monthly Mortgage Payment
Amount Borrowed = \$250,000

| Monthly | Duration | | | | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| 5.00% | 2,651.64 | 1,976.98 | 1,649.89 | 1,461.48 | 1,342.05 | 1,261.72 | 1,205.49 |
| 5.25% | 2,682.29 | 2,009.69 | 1,684.61 | 1,498.12 | 1,380.51 | 1,301.86 | 1,247.18 |
| 5.50% | 2,713.16 | 2,042.71 | 1,719.72 | 1,535.22 | 1,419.47 | 1,342.54 | 1,289.43 |
| 5.75% | 2,744.23 | 2,076.03 | 1,755.21 | 1,572.77 | 1,458.93 | 1,383.75 | 1,332.22 |
| 6.00% | 2,775.51 | 2,109.64 | 1,791.08 | 1,610.75 | 1,498.88 | 1,425.47 | 1,375.53 |
| 6.25% | 2,807.00 | 2,143.56 | 1,827.32 | 1,649.17 | 1,539.29 | 1,467.69 | 1,419.35 |
| 6.50% | 2,838.70 | 2,177.77 | 1,863.93 | 1,688.02 | 1,580.17 | 1,510.39 | 1,463.64 |
| 6.75% | 2,870.60 | 2,212.27 | 1,900.91 | 1,727.28 | 1,621.50 | 1,553.54 | 1,508.39 |
| 7.00% | 2,902.71 | 2,247.07 | 1,938.25 | 1,766.95 | 1,663.26 | 1,597.14 | 1,553.58 |
| 7.25% | 2,935.03 | 2,282.16 | 1,975.94 | 1,807.02 | 1,705.44 | 1,641.17 | 1,599.18 |
| 7.50% | 2,967.54 | 2,317.53 | 2,013.98 | 1,847.48 | 1,748.04 | 1,685.61 | 1,645.18 |
| 7.75% | 3,000.27 | 2,353.19 | 2,052.37 | 1,888.32 | 1,791.03 | 1,730.44 | 1,691.55 |
| 8.00% | 3,033.19 | 2,389.13 | 2,091.10 | 1,929.54 | 1,834.41 | 1,775.65 | 1,738.28 |
| 8.25% | 3,066.32 | 2,425.35 | 2,130.16 | 1,971.13 | 1,878.17 | 1,821.23 | 1,785.35 |
| 8.50% | 3,099.64 | 2,461.85 | 2,169.56 | 2,013.07 | 1,922.28 | 1,867.15 | 1,832.74 |
| 8.75% | 3,133.17 | 2,498.62 | 2,209.28 | 2,055.36 | 1,966.75 | 1,913.41 | 1,880.43 |
| 9.00% | 3,166.89 | 2,535.67 | 2,249.31 | 2,097.99 | 2,011.56 | 1,959.98 | 1,928.40 |
| 9.25% | 3,200.82 | 2,572.98 | 2,289.67 | 2,140.95 | 2,056.69 | 2,006.86 | 1,976.65 |
| 9.50% | 3,234.94 | 2,610.56 | 2,330.33 | 2,184.24 | 2,102.14 | 2,054.03 | 2,025.15 |
| 9.75% | 3,269.26 | 2,648.41 | 2,371.29 | 2,227.84 | 2,147.89 | 2,101.47 | 2,073.90 |
| 10.00% | 3,303.77 | 2,686.51 | 2,412.55 | 2,271.75 | 2,193.93 | 2,149.18 | 2,122.86 |
| 10.25% | 3,338.48 | 2,724.88 | 2,454.11 | 2,315.96 | 2,240.25 | 2,197.14 | 2,172.05 |
| 10.50% | 3,373.37 | 2,763.50 | 2,495.95 | 2,360.45 | 2,286.85 | 2,245.34 | 2,221.43 |
| 10.75% | 3,408.47 | 2,802.37 | 2,538.07 | 2,405.23 | 2,333.70 | 2,293.76 | 2,270.99 |
| 11.00% | 3,443.75 | 2,841.49 | 2,580.47 | 2,450.28 | 2,380.81 | 2,342.39 | 2,320.74 |
| 11.25% | 3,479.22 | 2,880.86 | 2,623.14 | 2,495.60 | 2,428.15 | 2,391.23 | 2,370.64 |
| 11.50% | 3,514.89 | 2,920.47 | 2,666.07 | 2,541.17 | 2,475.73 | 2,440.27 | 2,420.70 |
| 11.75% | 3,550.74 | 2,960.33 | 2,709.27 | 2,587.00 | 2,523.52 | 2,489.48 | 2,470.91 |
| 12.00% | 3,586.77 | 3,000.42 | 2,752.72 | 2,633.06 | 2,571.53 | 2,538.87 | 2,521.25 |
| 12.25% | 3,623.00 | 3,040.75 | 2,796.41 | 2,679.36 | 2,619.74 | 2,588.43 | 2,571.72 |
| 12.50% | 3,659.40 | 3,081.31 | 2,840.35 | 2,725.89 | 2,668.14 | 2,638.14 | 2,622.30 |
| 12.75% | 3,696.00 | 3,122.09 | 2,884.53 | 2,772.63 | 2,716.73 | 2,687.99 | 2,672.99 |
| 13.00% | 3,732.77 | 3,163.11 | 2,928.94 | 2,819.59 | 2,765.50 | 2,737.98 | 2,723.79 |
| 13.25% | 3,769.72 | 3,204.34 | 2,973.58 | 2,866.75 | 2,814.43 | 2,788.11 | 2,774.67 |
| 13.50% | 3,806.86 | 3,245.80 | 3,018.44 | 2,914.11 | 2,863.53 | 2,838.35 | 2,825.65 |
| 13.75% | 3,844.17 | 3,287.47 | 3,063.51 | 2,961.66 | 2,912.78 | 2,888.71 | 2,876.71 |
| 14.00% | 3,881.66 | 3,329.35 | 3,108.80 | 3,009.40 | 2,962.18 | 2,939.18 | 2,927.85 |

Directions: To find the size of the monthly payment for a \$250,000 mortgage, look in the appropriate row and column. For example, a 30-year, 13% monthly mortgage require 360 payments of \$2,765.50. Payments for different mortgages can be found on other pages.

ACTIVITY SHEET 6-1 FINDING YOUR MONTHLY MORTGAGE PAYMENT

Directions: Find the monthly mortgage payment for a mortgage amount and duration of your choice. Enter the payment in the table provided, and then do at least three more computations to discover how changes in the duration and/or the interest rate affects the size of the monthly payment.



$$\text{Payment} = \frac{\text{Principal}}{\text{PVIAF}} = \frac{\$100,000}{\left[\frac{1 - \frac{1}{(1+r)^n}}{r} \right]} = \frac{\$100,000}{\left[\frac{1 - \frac{1}{(1+.005)^{360}}}{.005} \right]} = \frac{\$100,000}{166.7916} = \$599.55$$

Where: $r = 6\%$ annual interest paid monthly $= .06/12 = .005$

$n =$ number of payments $= (30 \text{ years})(12 \text{ months}) = 360$

Amount Borrowed

Annual Interest

Number of Year

Your computations:

Size of Payment:

ACTIVITY SHEET 6-2 CHOOSING THE LENGTH OF YOUR MORTGAGE

Directions: In this activity, you will examine how the changes in the length of the mortgage and the frequency of the periodic payments affect the total amount of payments the borrower makes to the lender—a situation which may help you determine the terms of your mortgage.



1. My mortgage is for an amount of _____, at an annual interest rate of _____, for ____ years that will be paid _____ (monthly/bi-monthly).
2. Enter the interest rate in the first column and the payment underneath the appropriate duration, or length of the mortgage, in the table below.

Selecting the Length of the Mortgage

| Mortgage Rate | Payment Size Given Mortgage Duration | | | | | |
|---------------|--------------------------------------|---------|---------|---------|---------|---------|
| | 15-year | 20-year | 25-year | 30-year | 35-year | 40-year |
| | | | | | | |

3. Compute the size of the periodic payment for the remaining five cells and enter them in the table.
4. The total amount repaid to the lender will equal the periodic payment times the number of payments. Complete the table below to see how much you would repay under each of the six mortgage durations.

| Mortgage Duration | Number of Payments | Size of Payment | Total Amount Repaid |
|-------------------|--------------------|-----------------|---------------------|
| 15-year | | | |
| 20-year | | | |
| 25-year | | | |
| 30-year | | | |
| 35-year | | | |
| 40-year | | | |

5. On the back of this sheet, identify the mortgage you would select, and explain why you made your choice.