



## UNIT 5

# HOW MUCH CAN I BORROW?

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Most people finance the purchase of the home by obtaining a mortgage from a bank, savings and loan association, savings bank, or commercial bank. The **mortgage** is a long-term lending arrangement that requires the borrower to make periodic payments to the lender. To protect itself, the lender usually keeps the title to the property as **collateral** in case the borrower defaults on the loan.

Obtaining the mortgage is one of the most important steps in securing a home, but it involves more than just applying for a loan—it involves careful thought and planning so that the borrower will improve his or her chances of actually receiving the loan.

In this unit, students will discover how the lender looks at their credit status, and how the amount that a person can be expected to repay on a monthly basis is a function of a number of factors—including income and existing debt. After the maximum size of the monthly payment is determined, the duration of the mortgage and the level of interest rates will determine the maximum amount of money that can be borrowed towards the purchase.

### Student Learning Objectives:

- Students will discover how their income and debt levels limit the amount of money they can normally borrow to purchase a home.
- Students will learn how lenders determine the size of the monthly mortgage payments.
- Students will discover the relationship between the monthly payment, interest rates, the length of the mortgage, and the total amount of money they can borrow.

### Key Concepts:

mortgage  
principal

collateral  
down payment

## **LESSON 5-1: WHAT IS THE MAXIMUM MONTHLY PAYMENT?**

The size of the monthly payment is important because a homeowner will have to make so many of them. For example, a 20-year loan will involve 240 monthly payments, while a 30-year loan will involve 360 monthly payments. As a result, one of the things a lender will want to know is the maximum monthly payment that a borrower will be able to afford.

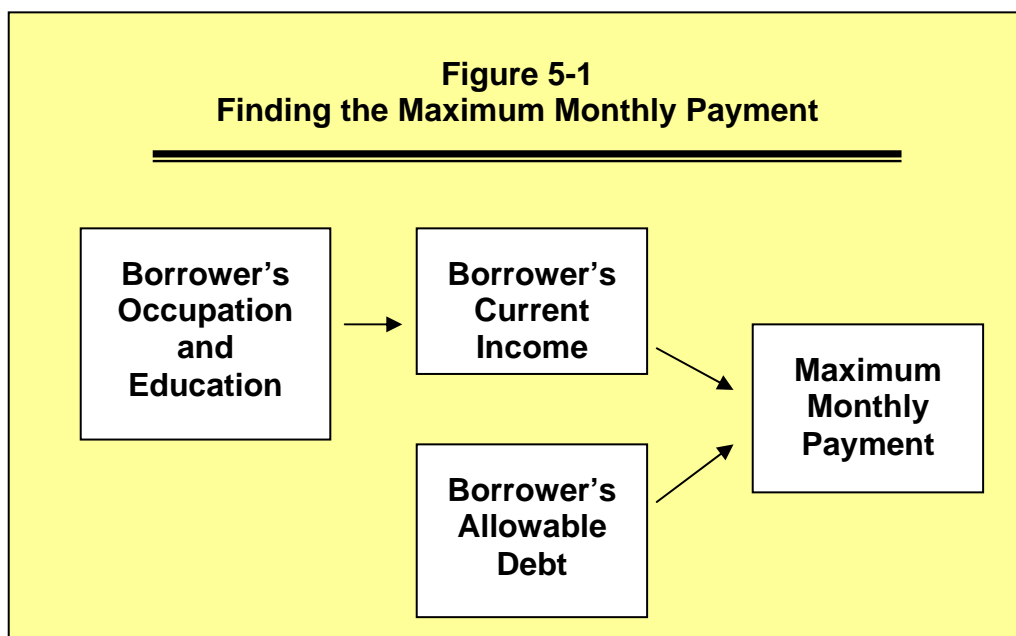
The maximum monthly payment is a function of the borrower's income and the amount of debt they already have—and the borrower can be *assured* that the lender will ask about both. As a result, it is important to see how these computations are made so that the borrower will not be disappointed when he or she applies for a loan.

### **Materials Needed:**

- At least one copy of *Activity Sheet 5-1: Finding the Maximum Monthly Payment* for each student.
- *Figure 5-1* transparency or PowerPoint presentation file.

### **Teaching the Lesson:**

1. One way to introduce the lesson is to show and then discuss *Figure 5-1*. The point to make is that a person's ability to borrow money to purchase a home will be a function of earlier decisions they have made – including career choices such as occupation and education – along with the amount of debt they have when they apply for the loan.



2. While students are viewing *Figure 5-1*, point out the following:
  - Borrower's Occupation and Education: The amount of income students earn will be one of the major factors in their ability to borrow money in order to purchase a home. Consider reviewing *Activity Sheet 1-1: Selecting an Occupation* and *Activity Sheet 1-3: The More You Learn, The More You Earn* in this context to remind students of the link between education and income.
  - Borrower's Income: While details may vary some from one lender to another, one widely-used rule of thumb is that the monthly housing costs—mortgage payments, insurance, taxes, other homeowner fees—should be no more than 28 percent of the borrowers gross (before taxes) monthly income. Also, monthly housing costs amount to more than the mortgage payments to the bank—about one-quarter of this amount represents payments for taxes and insurance.
  - Borrower's Allowable Debt: Lenders want to make sure that borrowers do not borrow so much money that they cannot pay it back. As a result, they use another rule of thumb that limits a borrower's allowable debt to 36 percent of the borrower's gross monthly income.
  - Maximum Monthly Payment: The combination of the two restrictions above, 25 percent and 36 percent, will determine the maximum monthly mortgage payment that the lender will allow the potential homebuyer to borrow. (Please see example below.)
3. Now that students have been introduced to the activity, distribute *Activity Sheet 5-1* and give them sufficient time to complete the work.
  - A Hypothetical Example: To illustrate how the activity sheet would be filled out, assume that a couple had a total gross (before-tax) annual income of \$36,000, or a gross monthly income of \$3,000. The allowable monthly debt in step (2) would amount to 36% of \$3,000, or \$1,080. If we assume that the couple had monthly car payments of \$400 and credit card payments of \$80, the additional allowable debt they would have would be \$1,080 minus \$480, or \$600.
  - According to step (3), they would—in the absence of other debt—be allowed to have \$840 (or 28 percent of \$3,000) in total housing costs. However, this is more than the additional allowable debt they could acquire, so as we see in step (4), the amount of debt available for housing is really the lesser of the two amounts—or \$600 rather than \$840.

- Finally, one-quarter of the monthly \$600 housing cost would go to taxes and insurance, leaving 75 percent of \$600, or \$450 available for monthly mortgage payments. While numbers may change slightly from one lender to another, this is a reasonably good approximation of the maximum loan a mortgage lender would make to a couple with \$3,000 of monthly income and \$480 of other monthly payments.
4. When students have completed their computations, consider having them list the maximum monthly payments on the chalkboard.

### **Debriefing the Lesson**

Students will probably be surprised to discover that the maximum monthly payment that the lender will permit is less than they imagined. Many may feel that they could actually handle larger payments, but even if they could, they would have a hard time convincing the lender.

Talk about things that students could do to increase the size of the monthly payment they computed on their worksheet. For example, students should realize that more education and higher paying jobs will definitely help. Also, students should realize that existing debt works against them. In fact, many young couples today find that they are unable to afford a home loan because they first wanted to purchase a new car. As a result, they should consider the merits of keeping their older cars a bit longer, or even doing without if at all possible.

Now that we have computed the maximum size of the mortgage payment that a lender is likely to issue, the next step is to find the size of the mortgage loan that the payment is able to support.

## **LESSON 5-2: HOW MUCH CAN I BORROW?**

The answer to this question “How much can I borrow?” is a function of three things: (1) the maximum monthly payment, (2) the interest rate on the mortgage, and (3) the length of the loan. The borrower has some control over the first and the third, but almost no control over the second factor, the level of interest rates.

For this lesson, we’ll assume that the first two are fixed, and that the borrower can only select length of the loan. Also, the tables used to complete the worksheets will be taken as a given for now, although they will be explained in more detail in the next unit.

### **Materials Needed:**

- At least one copy of *Activity Sheet 5-2: How Much Can I Borrow*, for each student.

- Students will need access to Tables 5-1a through 5-1f which deal with alternative mortgages given specific monthly payments and interest rates. You might want to make several packs of tables that they can share, or you may want to view them individually using the transparencies or PowerPoint presentation files.

 **Teaching the Lesson:**

1. By now, students probably have some preferences concerning the cost of home they want to buy. When the lesson begins, ask them to keep a figure in mind, as the purpose of this lesson is to see if they can afford it.
2. Tell students that whenever they buy a home they must first come up with a **down payment** ranging from 5 to 10 percent of the purchase price of a home. If we use 10 percent for our example, then a homebuyer would have to make a \$15,000 down payment on the purchase of a \$150,000 home, leaving \$135,000 to be loaned by the bank. Accordingly, the numbers students will be using in the activity sheet applies to the amount the bank will loan *after* the down payment is made, not the actual purchase price of the home.
3. Students should be told that whenever they borrow money from the bank, the monthly payment is used to pay down the **principal**—the total amount borrowed—and then make interest payments on the remaining principal. As a result of the additional interest payments, the size of the monthly payment will be much larger than the principal divided by the number of payments. If students are still curious about the way the bank determines the size of a monthly payment needed to pay off a 20-, 30-, or 40-year loan, tell them that this will be covered in the next unit. For now it is only necessary that they go from the size of the monthly payment to the total amount that they can borrow.
4. Distribute Activity Sheet 5-2: How Much Can I Borrow? Explain that they should match up the maximum size payment determined in Activity Sheet 5-1 with the nearest payment in the first column of the payments in **Tables 5-1a** through **5-1f** with the interest rates they select in their table. A sample of the brief table which shows how much borrowing power students have given the maximum size mortgage payment they computed at the end of Activity Sheet 5-1 is shown below, assuming a \$450 monthly mortgage payment:

**Mortgages For Which You Would Qualify**

Mortgage Rates	Alternative Mortgage Durations					
	15-year	20-year	25-year	30-year	35-year	40-year
9%	44,367	50,015	53,623	55,927	57,398	58,338
8%	47,088	53,799	58,304	61,328	63,357	64,719
7%	50,065	58,042	63,669	67,638	70,438	72,413

5. After students have reviewed the tables, give them a few moments to review the summary questions at the end of the activity sheet.

### **Debriefing the Lesson**

In most cases, students will be surprised to find that the maximum monthly payment the lender will allow them to make is usually not large enough to support the mortgage needed to purchase the home of their dreams. This is a problem that most homebuyers face, and there is little they can do about it except for taking some steps to increase the size of the maximum allowable payment found with Activity Sheet 5-1.

For example, prospective homebuyers may have to forego the purchase of a new car in order to reduce the existing monthly debt payments by \$200 to \$300 a month. Or, a young couple may have to pay off existing credit cards or college loans before approaching a lender about a mortgage. You might want to consider having them re-work Activity Sheet 5-1 using some of these assumptions to illustrate how it would improve their potential borrowing power.

Finally, many prospective homebuyers typically feel that they could manage a larger monthly payment if only the lender would agree. They may even be correct, but the lender also realizes that homeowners also tend to buy other things like furniture on credit, and that many years go by before the mortgage is fully repaid. As a result, they are likely to take a dim view of allowing larger monthly payments.

## **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.
- Teenage Consumers: Teaching Your Children How to Save and Spend. New York: American Express Company. Free pamphlet, available in classroom quantities, that provides basic information teenagers should know about saving and spending.

- What are You Worth? Richmond Federal Reserve Bank. Free pamphlet, available in classroom quantities, that explains how to calculate and monitor a household's financial and economic progress.
- 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 5-1a**  
**Alternative 15-Year Mortgages Given Monthly Payments and Interest Rates**

Monthly Payment	Interest								
	5%	6%	7%	8%	9%	10%	11%	12%	13%
\$300	37,937	35,551	33,377	31,392	29,578	27,917	26,395	24,996	23,711
\$325	41,098	38,514	36,158	34,008	32,043	30,244	28,594	27,080	25,687
\$350	44,259	41,476	38,940	36,624	34,508	32,570	30,794	29,163	27,663
\$375	47,421	44,439	41,721	39,240	36,973	34,897	32,993	31,246	29,639
\$400	50,582	47,401	44,502	41,856	39,437	37,223	35,193	33,329	31,615
\$425	53,743	50,364	47,284	44,472	41,902	39,549	37,392	35,412	33,590
\$450	56,905	53,327	50,065	47,088	44,367	41,876	39,592	37,495	35,566
\$475	60,066	56,289	52,847	49,704	46,832	44,202	41,791	39,578	37,542
\$500	63,228	59,252	55,628	52,320	49,297	46,529	43,991	41,661	39,518
\$525	66,389	62,214	58,409	54,936	51,762	48,855	46,191	43,744	41,494
\$550	69,550	65,177	61,191	57,552	54,226	51,182	48,390	45,827	43,470
\$575	72,712	68,140	63,972	60,168	56,691	53,508	50,590	47,910	45,446
\$600	75,873	71,102	66,754	62,784	59,156	55,834	52,789	49,993	47,422
\$625	79,035	74,065	69,535	65,400	61,621	58,161	54,989	52,076	49,398
\$650	82,196	77,027	72,316	68,016	64,086	60,487	57,188	54,159	51,374
\$675	85,357	79,990	75,098	70,632	66,551	62,814	59,388	56,242	53,349
\$700	88,519	82,952	77,879	73,248	69,015	65,140	61,587	58,325	55,325
\$725	91,680	85,915	80,661	75,864	71,480	67,467	63,787	60,408	57,301
\$750	94,841	88,878	83,442	78,480	73,945	69,793	65,986	62,491	59,277
\$775	98,003	91,840	86,223	81,096	76,410	72,120	68,186	64,574	61,253
\$800	101,164	94,803	89,005	83,712	78,875	74,446	70,386	66,657	63,229
\$825	104,326	97,765	91,786	86,328	81,340	76,772	72,585	68,740	65,205
\$850	107,487	100,728	94,568	88,945	83,804	79,099	74,785	70,823	67,181
\$875	110,648	103,691	97,349	91,561	86,269	81,425	76,984	72,906	69,157
\$900	113,810	106,653	100,130	94,177	88,734	83,752	79,184	74,989	71,133
\$925	116,971	109,616	102,912	96,793	91,199	86,078	81,383	77,073	73,109
\$950	120,132	112,578	105,693	99,409	93,664	88,405	83,583	79,156	75,084
\$975	123,294	115,541	108,475	102,025	96,129	90,731	85,782	81,239	77,060
\$1,000	126,455	118,504	111,256	104,641	98,593	93,057	87,982	83,322	79,036
\$1,025	129,617	121,466	114,037	107,257	101,058	95,384	90,181	85,405	81,012
\$1,050	132,778	124,429	116,819	109,873	103,523	97,710	92,381	87,488	82,988
\$1,075	135,939	127,391	119,600	112,489	105,988	100,037	94,581	89,571	84,964
\$1,100	139,101	130,354	122,382	115,105	108,453	102,363	96,780	91,654	86,940
\$1,125	142,262	133,316	125,163	117,721	110,918	104,690	98,980	93,737	88,916
\$1,150	145,424	136,279	127,944	120,337	113,382	107,016	101,179	95,820	90,892
\$1,175	148,585	139,242	130,726	122,953	115,847	109,342	103,379	97,903	92,868
\$1,200	151,746	142,204	133,507	125,569	118,312	111,669	105,578	99,986	94,844

**Directions:** To find the maximum size mortgage, read across the payment row until the desired interest rate column is reached. The value where the row and the column intersect will be the largest mortgage possible. If a larger mortgage is required, the borrower must either (1) make a larger monthly payment, (2) find a lower interest rate, or (3) take out a longer mortgage.

**Table 5-1b**  
**Alternative 20-Year Mortgages Given Monthly Payments and Interest Rates**

Monthly Payment	Interest								
	5%	6%	7%	8%	9%	10%	11%	12%	13%
\$300	45,458	41,874	38,695	35,866	33,343	31,087	29,064	27,246	25,607
\$325	49,246	45,364	41,919	38,855	36,122	33,678	31,487	29,516	27,740
\$350	53,034	48,853	45,144	41,844	38,901	36,269	33,909	31,787	29,874
\$375	56,822	52,343	48,368	44,833	41,679	38,859	36,331	34,057	32,008
\$400	60,610	55,832	51,593	47,822	44,458	41,450	38,753	36,328	34,142
\$425	64,398	59,322	54,818	50,811	47,237	44,040	41,175	38,598	36,276
\$450	68,186	62,811	58,042	53,799	50,015	46,631	43,597	40,869	38,410
\$475	71,975	66,301	61,267	56,788	52,794	49,222	46,019	43,139	40,544
\$500	75,763	69,790	64,491	59,777	55,572	51,812	48,441	45,410	42,678
\$525	79,551	73,280	67,716	62,766	58,351	54,403	50,863	47,680	44,811
\$550	83,339	76,769	70,940	65,755	61,130	56,994	53,285	49,951	46,945
\$575	87,127	80,259	74,165	68,744	63,908	59,584	55,707	52,221	49,079
\$600	90,915	83,748	77,390	71,733	66,687	62,175	58,129	54,492	51,213
\$625	94,703	87,238	80,614	74,721	69,466	64,765	60,551	56,762	53,347
\$650	98,491	90,728	83,839	77,710	72,244	67,356	62,973	59,033	55,481
\$675	102,280	94,217	87,063	80,699	75,023	69,947	65,395	61,303	57,615
\$700	106,068	97,707	90,288	83,688	77,801	72,537	67,817	63,574	59,749
\$725	109,856	101,196	93,512	86,677	80,580	75,128	70,239	65,844	61,882
\$750	113,644	104,686	96,737	89,666	83,359	77,718	72,661	68,115	64,016
\$775	117,432	108,175	99,961	92,655	86,137	80,309	75,083	70,385	66,150
\$800	121,220	111,665	103,186	95,643	88,916	82,900	77,505	72,656	68,284
\$825	125,008	115,154	106,411	98,632	91,695	85,490	79,927	74,926	70,418
\$850	128,797	118,644	109,635	101,621	94,473	88,081	82,349	77,197	72,552
\$875	132,585	122,133	112,860	104,610	97,252	90,672	84,771	79,467	74,686
\$900	136,373	125,623	116,084	107,599	100,030	93,262	87,193	81,737	76,820
\$925	140,161	129,112	119,309	110,588	102,809	95,853	89,615	84,008	78,953
\$950	143,949	132,602	122,533	113,577	105,588	98,443	92,037	86,278	81,087
\$975	147,737	136,091	125,758	116,565	108,366	101,034	94,460	88,549	83,221
\$1,000	151,525	139,581	128,983	119,554	111,145	103,625	96,882	90,819	85,355
\$1,025	155,313	143,070	132,207	122,543	113,924	106,215	99,304	93,090	87,489
\$1,050	159,102	146,560	135,432	125,532	116,702	108,806	101,726	95,360	89,623
\$1,075	162,890	150,049	138,656	128,521	119,481	111,396	104,148	97,631	91,757
\$1,100	166,678	153,539	141,881	131,510	122,259	113,987	106,570	99,901	93,891
\$1,125	170,466	157,028	145,105	134,499	125,038	116,578	108,992	102,172	96,025
\$1,150	174,254	160,518	148,330	137,487	127,817	119,168	111,414	104,442	98,158
\$1,175	178,042	164,007	151,554	140,476	130,595	121,759	113,836	106,713	100,292
\$1,200	181,830	167,497	154,779	143,465	133,374	124,350	116,258	108,983	102,426

**Directions:** To find the maximum size mortgage, read across the payment row until the desired interest rate column is reached. The value where the row and the column intersect will be the largest mortgage possible. If a larger mortgage is required, the borrower must either (1) make a larger monthly payment, (2) find a lower interest rate, or (3) take out a longer mortgage.

**Table 5-1c**  
**Alternative 25-Year Mortgages Given Monthly Payments and Interest Rates**

Monthly Payment	Interest								
	5%	6%	7%	8%	9%	10%	11%	12%	13%
\$300	51,318	46,562	42,446	38,869	35,748	33,014	30,609	28,484	26,600
\$325	55,595	50,442	45,983	42,108	38,728	35,765	33,159	30,858	28,816
\$350	59,871	54,322	49,520	45,348	41,707	38,517	35,710	33,231	31,033
\$375	64,148	58,203	53,058	48,587	44,686	41,268	38,261	35,605	33,250
\$400	68,424	62,083	56,595	51,826	47,665	44,019	40,812	37,979	35,466
\$425	72,701	65,963	60,132	55,065	50,644	46,770	43,362	40,352	37,683
\$450	76,977	69,843	63,669	58,304	53,623	49,521	45,913	42,726	39,899
\$475	81,254	73,723	67,206	61,543	56,602	52,272	48,464	45,100	42,116
\$500	85,530	77,603	70,743	64,782	59,581	55,024	51,015	47,473	44,333
\$525	89,807	81,484	74,281	68,021	62,560	57,775	53,565	49,847	46,549
\$550	94,083	85,364	77,818	71,260	65,539	60,526	56,116	52,221	48,766
\$575	98,360	89,244	81,355	74,500	68,518	63,277	58,667	54,594	50,983
\$600	102,636	93,124	84,892	77,739	71,497	66,028	61,217	56,968	53,199
\$625	106,913	97,004	88,429	80,978	74,476	68,780	63,768	59,342	55,416
\$650	111,189	100,884	91,966	84,217	77,455	71,531	66,319	61,715	57,633
\$675	115,466	104,765	95,504	87,456	80,434	74,282	68,870	64,089	59,849
\$700	119,742	108,645	99,041	90,695	83,413	77,033	71,420	66,463	62,066
\$725	124,019	112,525	102,578	93,934	86,392	79,784	73,971	68,836	64,282
\$750	128,295	116,405	106,115	97,173	89,371	82,535	76,522	71,210	66,499
\$775	132,572	120,285	109,652	100,413	92,350	85,287	79,073	73,584	68,716
\$800	136,848	124,165	113,190	103,652	95,329	88,038	81,623	75,957	70,932
\$825	141,125	128,046	116,727	106,891	98,308	90,789	84,174	78,331	73,149
\$850	145,401	131,926	120,264	110,130	101,287	93,540	86,725	80,705	75,366
\$875	149,678	135,806	123,801	113,369	104,266	96,291	89,275	83,078	77,582
\$900	153,954	139,686	127,338	116,608	107,245	99,043	91,826	85,452	79,799
\$925	158,231	143,566	130,875	119,847	110,225	101,794	94,377	87,826	82,016
\$950	162,507	147,447	134,413	123,086	113,204	104,545	96,928	90,199	84,232
\$975	166,784	151,327	137,950	126,325	116,183	107,296	99,478	92,573	86,449
\$1,000	171,060	155,207	141,487	129,565	119,162	110,047	102,029	94,947	88,665
\$1,025	175,337	159,087	145,024	132,804	122,141	112,798	104,580	97,320	90,882
\$1,050	179,613	162,967	148,561	136,043	125,120	115,550	107,130	99,694	93,099
\$1,075	183,890	166,847	152,098	139,282	128,099	118,301	109,681	102,068	95,315
\$1,100	188,166	170,728	155,636	142,521	131,078	121,052	112,232	104,441	97,532
\$1,125	192,443	174,608	159,173	145,760	134,057	123,803	114,783	106,815	99,749
\$1,150	196,719	178,488	162,710	148,999	137,036	126,554	117,333	109,189	101,965
\$1,175	200,996	182,368	166,247	152,238	140,015	129,305	119,884	111,562	104,182
\$1,200	205,272	186,248	169,784	155,477	142,994	132,057	122,435	113,936	106,399

**Directions:** To find the maximum size mortgage, read across the payment row until the desired interest rate column is reached. The value where the row and the column intersect will be the largest mortgage possible. If a larger mortgage is required, the borrower must either (1) make a larger monthly payment, (2) find a lower interest rate, or (3) take out a longer mortgage.

**Table 5-1d**  
**Alternative 30-Year Mortgages Given Monthly Payments and Interest Rates**

Monthly Payment	Interest								
	5%	6%	7%	8%	9%	10%	11%	12%	13%
\$300	55,884	50,037	45,092	40,885	37,285	34,185	31,502	29,165	27,120
\$325	60,542	54,207	48,850	44,292	40,392	37,034	34,127	31,596	29,380
\$350	65,199	58,377	52,608	47,699	43,499	39,883	36,752	34,026	31,640
\$375	69,856	62,547	56,365	51,106	46,606	42,732	39,377	36,457	33,900
\$400	74,513	66,717	60,123	54,513	49,713	45,580	42,003	38,887	36,160
\$425	79,170	70,886	63,881	57,920	52,820	48,429	44,628	41,318	38,420
\$450	83,827	75,056	67,638	61,328	55,927	51,278	47,253	43,748	40,680
\$475	88,484	79,226	71,396	64,735	59,034	54,127	49,878	46,179	42,940
\$500	93,141	83,396	75,154	68,142	62,141	56,975	52,503	48,609	45,200
\$525	97,798	87,566	78,911	71,549	65,248	59,824	55,128	51,040	47,460
\$550	102,455	91,735	82,669	74,956	68,355	62,673	57,753	53,470	49,720
\$575	107,112	95,905	86,427	78,363	71,462	65,522	60,379	55,901	51,980
\$600	111,769	100,075	90,185	81,770	74,569	68,370	63,004	58,331	54,240
\$625	116,426	104,245	93,942	85,177	77,676	71,219	65,629	60,761	56,500
\$650	121,083	108,415	97,700	88,584	80,783	74,068	68,254	63,192	58,760
\$675	125,740	112,584	101,458	91,991	83,890	76,917	70,879	65,622	61,020
\$700	130,397	116,754	105,215	95,398	86,997	79,766	73,504	68,053	63,280
\$725	135,054	120,924	108,973	98,806	90,104	82,614	76,130	70,483	65,540
\$750	139,711	125,094	112,731	102,213	93,211	85,463	78,755	72,914	67,800
\$775	144,368	129,264	116,488	105,620	96,318	88,312	81,380	75,344	70,060
\$800	149,025	133,433	120,246	109,027	99,425	91,161	84,005	77,775	72,320
\$825	153,682	137,603	124,004	112,434	102,533	94,009	86,630	80,205	74,580
\$850	158,339	141,773	127,761	115,841	105,640	96,858	89,255	82,636	76,840
\$875	162,996	145,943	131,519	119,248	108,747	99,707	91,881	85,066	79,100
\$900	167,653	150,112	135,277	122,655	111,854	102,556	94,506	87,496	81,360
\$925	172,310	154,282	139,035	126,062	114,961	105,405	97,131	89,927	83,620
\$950	176,968	158,452	142,792	129,469	118,068	108,253	99,756	92,357	85,880
\$975	181,625	162,622	146,550	132,876	121,175	111,102	102,381	94,788	88,140
\$1,000	186,282	166,792	150,308	136,283	124,282	113,951	105,006	97,218	90,400
\$1,025	190,939	170,961	154,065	139,691	127,389	116,800	107,632	99,649	92,660
\$1,050	195,596	175,131	157,823	143,098	130,496	119,648	110,257	102,079	94,920
\$1,075	200,253	179,301	161,581	146,505	133,603	122,497	112,882	104,510	97,180
\$1,100	204,910	183,471	165,338	149,912	136,710	125,346	115,507	106,940	99,440
\$1,125	209,567	187,641	169,096	153,319	139,817	128,195	118,132	109,371	101,700
\$1,150	214,224	191,810	172,854	156,726	142,924	131,043	120,757	111,801	103,960
\$1,175	218,881	195,980	176,611	160,133	146,031	133,892	123,382	114,232	106,220
\$1,200	223,538	200,150	180,369	163,540	149,138	136,741	126,008	116,662	108,480

**Directions:** To find the maximum size mortgage, read across the payment row until the desired interest rate column is reached. The value where the row and the column intersect will be the largest mortgage possible. If a larger mortgage is required, the borrower must either (1) make a larger monthly payment, (2) find a lower interest rate, or (3) take out a longer mortgage.

**Table 5-1e**  
**Alternative 35-Year Mortgages Given Monthly Payments and Interest Rates**

Monthly Payment	Interest								
	5%	6%	7%	8%	9%	10%	11%	12%	13%
\$300	59,443	52,614	46,959	42,238	38,266	34,897	32,019	29,541	27,392
\$325	64,396	56,999	50,872	45,758	41,454	37,805	34,687	32,002	29,675
\$350	69,350	61,383	54,785	49,278	44,643	40,713	37,355	34,464	31,958
\$375	74,303	65,768	58,699	52,798	47,832	43,621	40,023	36,926	34,241
\$400	79,257	70,152	62,612	56,317	51,021	46,529	42,691	39,388	36,523
\$425	84,210	74,537	66,525	59,837	54,210	49,437	45,360	41,849	38,806
\$450	89,164	78,921	70,438	63,357	57,398	52,346	48,028	44,311	41,089
\$475	94,118	83,306	74,352	66,877	60,587	55,254	50,696	46,773	43,371
\$500	99,071	87,690	78,265	70,397	63,776	58,162	53,364	49,234	45,654
\$525	104,025	92,075	82,178	73,917	66,965	61,070	56,032	51,696	47,937
\$550	108,978	96,459	86,091	77,436	70,154	63,978	58,701	54,158	50,219
\$575	113,932	100,844	90,005	80,956	73,342	66,886	61,369	56,620	52,502
\$600	118,885	105,228	93,918	84,476	76,531	69,794	64,037	59,081	54,785
\$625	123,839	109,613	97,831	87,996	79,720	72,702	66,705	61,543	57,068
\$650	128,793	113,997	101,744	91,516	82,909	75,610	69,373	64,005	59,350
\$675	133,746	118,382	105,658	95,036	86,098	78,518	72,042	66,466	61,633
\$700	138,700	122,766	109,571	98,555	89,287	81,426	74,710	68,928	63,916
\$725	143,653	127,151	113,484	102,075	92,475	84,334	77,378	71,390	66,198
\$750	148,607	131,535	117,397	105,595	95,664	87,243	80,046	73,852	68,481
\$775	153,560	135,920	121,311	109,115	98,853	90,151	82,715	76,313	70,764
\$800	158,514	140,304	125,224	112,635	102,042	93,059	85,383	78,775	73,046
\$825	163,467	144,689	129,137	116,155	105,231	95,967	88,051	81,237	75,329
\$850	168,421	149,073	133,050	119,674	108,419	98,875	90,719	83,699	77,612
\$875	173,375	153,458	136,963	123,194	111,608	101,783	93,387	86,160	79,895
\$900	178,328	157,842	140,877	126,714	114,797	104,691	96,056	88,622	82,177
\$925	183,282	162,227	144,790	130,234	117,986	107,599	98,724	91,084	84,460
\$950	188,235	166,611	148,703	133,754	121,175	110,507	101,392	93,545	86,743
\$975	193,189	170,996	152,616	137,274	124,363	113,415	104,060	96,007	89,025
\$1,000	198,142	175,380	156,530	140,793	127,552	116,323	106,728	98,469	91,308
\$1,025	203,096	179,765	160,443	144,313	130,741	119,231	109,397	100,931	93,591
\$1,050	208,049	184,149	164,356	147,833	133,930	122,140	112,065	103,392	95,874
\$1,075	213,003	188,534	168,269	151,353	137,119	125,048	114,733	105,854	98,156
\$1,100	217,957	192,918	172,183	154,873	140,307	127,956	117,401	108,316	100,439
\$1,125	222,910	197,303	176,096	158,393	143,496	130,864	120,069	110,777	102,722
\$1,150	227,864	201,687	180,009	161,912	146,685	133,772	122,738	113,239	105,004
\$1,175	232,817	206,072	183,922	165,432	149,874	136,680	125,406	115,701	107,287
\$1,200	237,771	210,456	187,836	168,952	153,063	139,588	128,074	118,163	109,570

**Directions:** To find the maximum size mortgage, read across the payment row until the desired interest rate column is reached. The value where the row and the column intersect will be the largest mortgage possible. If a larger mortgage is required, the borrower must either (1) make a larger monthly payment, (2) find a lower interest rate, or (3) take out a longer mortgage.

**Table 5-1f**  
**Alternative 40-Year Mortgages Given Monthly Payments and Interest Rates**

Monthly Payment	Interest								
	5%	6%	7%	8%	9%	10%	11%	12%	13%
\$300	62,215	54,524	48,276	43,146	38,892	35,330	32,317	29,747	27,535
\$325	67,400	59,068	52,299	46,742	42,133	38,274	35,010	32,226	29,830
\$350	72,585	63,612	56,322	50,337	45,374	41,218	37,704	34,705	32,124
\$375	77,769	68,155	60,345	53,933	48,615	44,162	40,397	37,184	34,419
\$400	82,954	72,699	64,368	57,528	51,856	47,106	43,090	39,663	36,714
\$425	88,138	77,243	68,391	61,124	55,097	50,050	45,783	42,142	39,008
\$450	93,323	81,786	72,413	64,719	58,338	52,994	48,476	44,621	41,303
\$475	98,508	86,330	76,436	68,315	61,579	55,939	51,169	47,100	43,597
\$500	103,692	90,874	80,459	71,910	64,820	58,883	53,862	49,579	45,892
\$525	108,877	95,417	84,482	75,506	68,061	61,827	56,555	52,058	48,187
\$550	114,061	99,961	88,505	79,101	71,302	64,771	59,248	54,536	50,481
\$575	119,246	104,505	92,528	82,697	74,544	67,715	61,942	57,015	52,776
\$600	124,431	109,049	96,551	86,292	77,785	70,659	64,635	59,494	55,070
\$625	129,615	113,592	100,574	89,888	81,026	73,603	67,328	61,973	57,365
\$650	134,800	118,136	104,597	93,483	84,267	76,548	70,021	64,452	59,660
\$675	139,984	122,680	108,620	97,079	87,508	79,492	72,714	66,931	61,954
\$700	145,169	127,223	112,643	100,674	90,749	82,436	75,407	69,410	64,249
\$725	150,354	131,767	116,666	104,270	93,990	85,380	78,100	71,889	66,543
\$750	155,538	136,311	120,689	107,865	97,231	88,324	80,793	74,368	68,838
\$775	160,723	140,854	124,712	111,461	100,472	91,268	83,486	76,847	71,133
\$800	165,907	145,398	128,735	115,056	103,713	94,212	86,180	79,326	73,427
\$825	171,092	149,942	132,758	118,652	106,954	97,156	88,873	81,805	75,722
\$850	176,277	154,485	136,781	122,247	110,195	100,101	91,566	84,284	78,016
\$875	181,461	159,029	140,804	125,843	113,436	103,045	94,259	86,763	80,311
\$900	186,646	163,573	144,827	129,438	116,677	105,989	96,952	89,241	82,606
\$925	191,830	168,117	148,850	133,034	119,918	108,933	99,645	91,720	84,900
\$950	197,015	172,660	152,873	136,629	123,159	111,877	102,338	94,199	87,195
\$975	202,200	177,204	156,896	140,225	126,400	114,821	105,031	96,678	89,489
\$1,000	207,384	181,748	160,919	143,820	129,641	117,765	107,724	99,157	91,784
\$1,025	212,569	186,291	164,942	147,416	132,882	120,710	110,418	101,636	94,079
\$1,050	217,754	190,835	168,965	151,011	136,123	123,654	113,111	104,115	96,373
\$1,075	222,938	195,379	172,988	154,607	139,364	126,598	115,804	106,594	98,668
\$1,100	228,123	199,922	177,011	158,202	142,605	129,542	118,497	109,073	100,962
\$1,125	233,307	204,466	181,034	161,798	145,846	132,486	121,190	111,552	103,257
\$1,150	238,492	209,010	185,057	165,393	149,087	135,430	123,883	114,031	105,552
\$1,175	243,677	213,553	189,080	168,989	152,328	138,374	126,576	116,510	107,846
\$1,200	248,861	218,097	193,103	172,584	155,569	141,318	129,269	118,989	110,141

**Directions:** To find the maximum size mortgage, read across the payment row until the desired interest rate column is reached. The value where the row and the column intersect will be the largest mortgage possible. If a larger mortgage is required, the borrower must either (1) make a larger monthly payment, (2) find a lower interest rate, or (3) take out a balloon mortgage.

## ACTIVITY SHEET 5-1 FINDING THE MAXIMUM MONTHLY PAYMENT

**Directions:** Follow the steps in the worksheet below to find the largest monthly mortgage payment that a lender is likely to grant, pending the size of your monthly income and other financial obligations.



1. **Annual gross income** (before-tax) for self and spouse of \$ \_\_\_\_\_, for a monthly gross income (annual gross income/12 months) of:

2. **Allowable monthly debt:**  
(36% of monthly gross income) = (.36)(\_\_\_\_\_ ) = \_\_\_\_\_

**Less: Current monthly debts:**

- Car payments: \_\_\_\_\_
- Credit card payments: \_\_\_\_\_
- College loans: \_\_\_\_\_
- Alimony and child support: \_\_\_\_\_
- Other monthly debts: \_\_\_\_\_

**Equals: Allowable additional debt:**

3. **Allowable monthly housing costs:**  
(28% of monthly gross income) = (.28)(\_\_\_\_\_ ) =

4. **Lesser of (2) allowable additional debt or (3) allowable monthly housing costs, equals the amount currently available for housing costs:**

5. **Breakdown of monthly housing cost:**

25% taxes and insurance = (.25)(\_\_\_\_\_ )

75% principal and interest = (.75)(\_\_\_\_\_ ) =

**This last computation is the size of your maximum monthly payment!**

## ACTIVITY SHEET 5-2 HOW MUCH CAN I BORROW?

**Directions:** In this activity, you will find the size of the mortgage that can be supported by the maximum monthly mortgage payment you determined on the previous activity sheet. If the mortgage is not large enough to purchase the house of your dreams, then you may have to back to the drawing board to see what you need to do in order to afford a larger loan or scale back on your dream house.



1. The type of house that I would like to purchase (use any reasonable estimate) will cost approximately \$\_\_\_\_\_.
2. Assuming that the lender will require a 10 percent down payment, you will need to borrow \_\_\_\_\_ in order to purchase the home.
3. Using an Internet source such as <http://www.EconSources.com> or your local paper, find the interest rate currently being charged for standard fixed-rate mortgages. Enter this rate in the middle row of the table below. Put a higher interest rate in the top row and put a lower rate in the bottom row.

**Mortgages For Which You Would Qualify**

Mortgage Rates	Alternative Mortgage Durations					
	15-year	20-year	25-year	30-year	35-year	40-year

4. Using the maximum monthly mortgage payment of \_\_\_\_\_ that you computed in *Activity Sheet 5-1*, along with the information in **Tables 5-1a** through **5-1f**, fill in the cells in the table above. When you are done, you will have listing of various mortgage loans you could obtain at various interest rates and mortgage durations.
5. Are any of the mortgage amounts in the above table large enough to allow you to purchase the house of your dreams? If not, what can you do to improve your borrowing power? Put your answer(s) on the reverse of this sheet.

