

Getting a Mortgage

The loan you get to buy a house or a condominium is called a **mortgage**. The **principal and interest** (“P&I”) portion of your monthly mortgage payment depends on the amount you borrow, the **interest rate**, and the total number of payments (the mortgage **term**).

Mortgage rates go up or down as a result of a variety of economic factors. In 1985, some 30-year mortgages had an interest rate of almost 12%. In 2010, the rate was closer to 5%, or even less. Rates vary a bit by region, and housing prices differ, as well.

Example 1: Your parents bought a house when they were first married. It cost \$82,750. They put 20% down and borrowed the remainder at 10.5% for 30 years. What was the **down payment** and the mortgage amount? How much did they pay each month?

Step 1 Multiply to find the down payment.

(**THINK:** 20% = 0.2)

$$0.2 \times \$82,750 = \$16,550$$

The down payment was \$16,550.

Step 2 Subtract to find the mortgage amount.

$$\$82,750 - \$16,550 = \$66,200$$

The mortgage amount was \$66,200.

Step 3 Divide to find how many \$1,000 you are borrowing.

$$\$66,200 \div \$1,000 = 66.2$$

Step 4 Multiply to find the monthly payment.

(**THINK:** Use the mortgage payment table. Find the monthly payment per \$1,000, or \$9.15.)

$$66.2 \times \$9.15 = \$605.73$$

They paid \$605.73 per month.

MORTGAGE PAYMENTS PER \$1000			
Interest Rate	Monthly Payment		
	20-y loan	25-y loan	30-y loan
5.0%	\$6.60	\$5.85	\$5.37
5.5%	\$6.88	\$6.14	\$5.68
6.0%	\$7.16	\$6.44	\$6.00
6.5%	\$7.46	\$6.75	\$6.32
7.0%	\$7.75	\$7.07	\$6.65
7.5%	\$8.06	\$7.39	\$6.99
8.0%	\$8.36	\$7.72	\$7.34
8.5%	\$8.68	\$8.05	\$7.69
9.0%	\$9.00	\$8.40	\$8.05
9.5%	\$9.33	\$8.74	\$8.41
10.0%	\$9.66	\$9.09	\$8.78
10.5%	\$9.99	\$9.45	\$9.15
11.0%	\$10.33	\$9.81	\$9.53
11.5%	\$10.66	\$10.16	\$9.90
12.0%	\$11.01	\$10.53	\$10.29
12.5%	\$11.36	\$10.90	\$10.67
13.0%	\$11.72	\$11.28	\$11.06
13.5%	\$12.07	\$11.66	\$11.45
14.0%	\$12.44	\$12.04	\$11.85
14.5%	\$12.80	\$12.42	\$12.25
15.0%	\$13.17	\$12.81	\$12.64
15.5%	\$13.54	\$13.20	\$13.05

Name _____ Date _____

The **closing** is the day on which you sign the mortgage papers and the contract. You will have to pay **closing costs** to the bank and others who helped process the mortgage. Included in these costs are whatever **points** you have agreed to pay. You can sometimes reduce your interest rate by paying points "up front," which means at closing. Each point is 1% of the mortgage amount.

Example 2: Your parents' mortgage amount was \$66,200. Their closing costs were $2\frac{1}{2}$ points, plus \$250 for the bank's attorney, and a \$185 title fee. How much were their closing costs?

(**THINK:** $2\frac{1}{2}$ points = $2\frac{1}{2}\%$ = 0.025)

Step 1 Multiply to find the points. $0.025\% \times \$66,200 = \$1,655$

Step 2 Add to find the closing costs. $\$1,655 + \$250 + \$185 = \$2,090$

Their closing costs were \$2,090.

Think About It

- How could you estimate the extra cost per month of borrowing \$50,000 for 30 years at 11% instead of 10%?

Practice

Using the table, find the monthly payment on the following mortgages to the nearest cent.

Mortgage amount	Interest Rate	Term	Monthly payment
\$145,000	10.5%	30 y	1. _____
\$98,000	11.5%	25 y	2. _____
\$220,000	6%	20 y	3. _____
\$175,000	5%	30 y	4. _____
\$114,000	8.5%	30 y	5. _____

Name _____ Date _____

the following mortgages, calculate the down payment amount, the mortgage amount, and the monthly payment:

Purchase Price	% Down	Down payment	Mortgage amt.	Interest rate	Term	Monthly payment
\$124,000	20%	6. _____	7. _____	10.5%	30 y	8. _____
\$89,700	10%	9. _____	10. _____	10.0%	20 y	11. _____
\$93,620	30%	12. _____	13. _____	11.0%	25 y	14. _____
\$79,840	15%	15. _____	16. _____	9.5%	30 y	17. _____

Find the closing costs.

Mortgage amount	Points	Attorney's Fees	Title Fees	Closing Costs
\$37,000	3	\$750	\$300	18. _____
\$57,000	1	\$900	\$250	19. _____
\$109,500	4	\$840	\$175	20. _____
\$96,450	2½	\$575	\$375	21. _____
\$88,750	3½	\$465	\$305	22. _____

When housing costs go up and rates go down, the numbers look a little different.

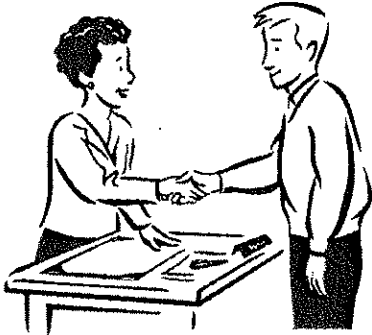
Calculate down payment, mortgage amount, and monthly payment for these higher purchase prices with lower interest rates:

Purchase Price	% Down	Down payment	Mortgage amt.	Rate	Term	Monthly payment
\$189,000	20%	23. _____	24. _____	5.5%	30 y	25. _____
\$289,700	10%	26. _____	27. _____	5.0%	20 y	28. _____
\$393,000	30%	29. _____	30. _____	6.0%	25 y	31. _____
\$479,000	25%	32. _____	33. _____	6.5%	30 y	34. _____

Extension

Using Bank Websites

Most banks post their rates at their websites. Their rates vary, not in increments of 0.5%, as in the table on page 95, but in increments of 0.125% (an eighth). Use the table to answer the questions that follow. The example uses a 30-year fixed-rate mortgage.



Using the table, find the monthly payment on the following mortgages to the nearest cent.

Assume the term of the mortgage is 30 years.

1. \$145,000 at 5% _____
2. \$98,000 at 6.875% _____
3. \$220,000 at 5.625% _____
4. \$175,000 at 5.375% _____
5. \$114,000 at 6.125% _____
6. \$151,200 at 5.25% _____
7. \$260,750 at 6.375% _____
8. \$275,100 at 7% _____
9. \$359,250 at 5.5% _____
10. \$100,000 at 5.875% _____

MORTGAGE PAYMENTS PER \$1000	
Interest Rate	Monthly Payment
	30-y loan
5.0%	\$5.37
5.125%	\$5.44
5.25%	\$5.52
5.375%	\$5.60
5.5%	\$5.68
5.625%	\$5.76
5.75%	\$5.84
5.875%	\$5.92
6.0%	\$6.00
6.125%	\$6.08
6.25%	\$6.16
6.375%	\$6.24
6.5%	\$6.32
6.625%	\$6.40
6.75%	\$6.49
6.875%	\$6.57
7.0%	\$6.65

in value because of its location, its commuting distance to a city, its nearness to various attractions, and the state of the economy. Houses depreciate due to factors affecting the overall economy.

More Practice

1. \$47,338.20
2. \$193,385.36
3. \$187,550
4. \$199,517.76
5. \$353,394.14
6. \$99,497.44
7. \$418,500
8. 15%
9. \$525,706.25
10. \$137,200

Extension

1. Ed's house
2. \$17,675.49

Pages 93-94

Think About It

1. Condominiums tend to be less expensive, and their taxes tend to be less, as well.
2. Assessments of needed maintenance can unexpectedly add thousands of dollars to a condo-dweller's expenses.

Practice

1. \$35,600, \$1,253.76
2. \$50,000, \$1,623.64
3. \$3,500, \$798.56
4. \$3,500
5. \$4,464.29
6. \$7,857.14
7. \$9,928.57

8. \$12,678.57
9. \$14,285.71
10. \$37,520; \$1249.80
11. \$35,000; \$1,029.55
12. about \$3,400

Extension

1. In 2 years, maintenance fees will be \$210.
2. In 2 years, the monthly payment will be \$1,444.47.

Pages 96-98

Think About It

1. The monthly payment per \$1,000 for 11% (\$9.53) is about \$0.80 more than for 10% (\$8.78). You can mentally multiply $50 \times \$0.80$ to get \$40 extra per month at 11%.

Practice

1. \$1,326.75
2. \$995.68
3. \$1,575.20
4. \$939.75
5. \$876.66
6. \$24,800
7. \$99,200
8. \$907.68
9. \$8,970
10. \$80,730
11. \$779.85
12. \$28,086
13. \$65,534
14. \$642.89
15. \$11,976
16. \$67,864
17. \$570.74
18. \$2,160
19. \$1,720
20. \$5,395
21. \$3,361.25

22. \$3,876.25
23. \$37,800
24. \$151,200
25. \$858.82
26. \$28,970
27. \$260,730
28. \$1,720.82
29. \$117,900
30. \$275,100
31. \$1,771.64
32. \$119,750
33. \$359,250
34. \$2,270.46

Extension

- | | |
|---------------|---------------|
| 1. \$778.65 | 2. \$643.86 |
| 3. \$1,267.20 | 4. \$980.00 |
| 5. \$693.12 | 6. \$834.62 |
| 7. \$1,627.08 | 8. \$1,829.42 |
| 9. \$2,040.54 | 10. \$592 |

Pages 100-102

Think About It

1. Tax rate increases when costs increase, or when a locality loses property from its tax rolls.
2. Banks earn interest on the money they hold until taxes are paid.

Practice

- | | |
|--------------------------|----------------|
| 1. \$76,000 | 2. \$88,500 |
| 3. \$172,900 | 4. \$129,285 |
| 5. \$310,791 | 6. \$2,391.96 |
| 7. \$2,099.02 | 8. \$1,975.68 |
| 9. \$2,323.56 | 10. \$5,242.56 |
| 11. \$721 | 12. \$824 |
| 13. \$878 | 14. \$780 |
| 15. \$945 | 16. \$87,500 |
| 17. \$52,250 | |
| 18. \$87,750; \$2,886.98 | |
| 19. \$71,920; \$3,042.22 | |
| 20. \$804.58 | 21. \$712.52 |

