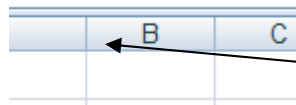


In this project, you need to find the highest amount Penny Pinscher could pay and still stay within her budget. The easiest way to do this is to use Excel to calculate the quantities. However, you can't simply type in the numbers as if you were filling out a table, you need to exploit the power of Excel! By spending a little time linking the calculations, you can save yourself a lot of time when it comes to finding the limit Penny should be willing to pay and stay within budget.

For this technology, you'll create an Excel worksheet to facilitate your calculations. Once you have completed the worksheet, attach it to the Turn In page for Tech Assignment 6.

To get started, look at the two handouts, Basic Information Chart and Mortgage Programs Chart. Fill out each worksheet completely. Much of the information you'll need is in the project letter or can be calculated by following the instructions in the handout. Document your steps carefully so you'll be able to reproduce the calculation in the Excel worksheet.

1. In cells A1 through A13, type what is in the first column and thirteen rows of the table in the Basic Information Chart. You'll probably need to make the column wider by moving your cursor to the border between columns A and B at the top of the worksheet.



Drag the border by holding down the left mouse button.

Once you have widened column A, your worksheet should like the one below.

	A
1	Sales price of house
2	Total cash on hand
3	Amount needed for closing costs other than points
4	Amount left for down payment and points
5	5% minimum down payment required by the credit union
6	Maximum amount of total monthly payment you can afford
7	Monthly mortgage insurance
8	Monthly Home Owners Insurance
9	% fair market value
10	Taxable value of your property
11	Property tax rate
12	Yearly property taxes
13	Total monthly escrow payments
14	

2. In cells B1 through B3, enter the appropriate values from the project letter.

3. The amount in cell B4 is the difference between cells B2 and B3. In cell B4, type an = and then click on cell B2. Press the - key on the keyboard and then click on cell B3. Alternately, you could simply type = B2 - B3 in cell B4. Press Enter on the keyboard to calculate this value.

4. In cell B5, you need to calculate 5% of the sales price of the house. To do this, put the formula = 0.05*B1 into cell B5. Press Enter to calculate the minimum down payment.

5. In cell B6 through B8, put the maximum monthly payment Penny Pinscher can afford, the monthly mortgage insurance payment, and monthly home owners insurance from the Project Letter.

6. Click on cell B9. Type in 86% to indicate the fair market value percentage.

7. In cell B10, we need to take the percentage in B9 and multiply it by sales price of the house in cell B1. So type = B9*B1. Press Enter to calculate the taxable value of the property.

8. In cell B11, type the property tax rate from the Project Letter.

9. In cell B12 we need to calculate the annual property taxes. This is done by using the taxable value of the property in cell B10. Since the taxes are assessed per \$100 of taxable value, we need to divide the taxable value by 100 and then multiply by the property tax rate. This means that cell B12 should contain = B10/100*B11.

10. The total escrow payment per month is the sum of the taxes divided by 12, monthly mortgage insurance and monthly home owners insurance. Type a formula in B13 that calculates this sum.


11. To test your worksheet, see if your numbers match the ones shown below.

	A	B
1	Sales price of house	125000
2	Total cash on hand	12000
3	Amount needed for closing costs other than points	3500
4	Amount left for down payment and points	8500
5	5% minimum down payment required by the credit union	6250
6	Maximum amount of total monthly payment you can afford	1100
7	Monthly mortgage insurance	75
8	Monthly Home Owners Insurance	50
9	% fair market value	86%
10	Taxable value of your property	107500
11	Property tax rate	1.93
12	Yearly property taxes	2074.75
13	Total monthly escrow payments	297.8958
14		

If your worksheet is linked properly, you should be able to change the sales price to 120000 and see your Total monthly escrow payments change to 290.98.

12. In cells A15 through A28, put the following components from the Mortgage Programs Chart.

	A
12	Yearly property taxes
13	Total monthly escrow payments
14	
15	Number of years
16	Points
17	Rate
18	APR
19	Number of months
20	Down payment
21	Amount of loan
22	Cost of points
23	Monthly principal and interest payment
24	Total monthly payment
25	Total interest
26	Amount of any prepaid finance charges and fees other than points
27	Total cost of loan
28	Is the loan within the budget?

13. In cells B15 through B18, enter the appropriate information from the Project Letter. Follow any percents with a % symbol. If any of your numbers are rounded too much, click on the offending cell and press the  button on Number panel (under the Home tab).

14. In B19, enter a formula that calculates the Number of months in the loan using the value in B15.

15. In cell B20, type a formula for the down payment. To find this formula, you can solve for D in the equation $A = pts(C - D) + D$, where A is the amount of money you have for down payment, C is the sales price of the house in B1, and pts is the points in B16.

16. In cell B21, type a formula for the amount of the loan using the sales price in B1 and the down payment in B20.

17. In cell B22, type a formula for the cost of the points.

18. In cell B23, use the formula $R = \frac{Pi}{1 - (1+i)^{-n}}$ to calculate the monthly principal and interest payment. Make sure you use the APR to calculate i . This is the most critical step. Make sure the number you get in Excel matches the value calculated by hand.

19. In cell B24, type a formula for the total monthly payment using the total monthly escrow payments in B13 and the monthly principal and interest in B23.

20. In cell B25, calculate the total interest using the monthly principal and interest payment in B23, the number of months in B19, and the loan amount in B21.

21. In cell B26, enter the amount of prepaid finance charges and fees other than points from the Project Letter.

22. Finally, enter a formula for the total cost of the loan using the cost of the points in B22, the total interest in B25, and the prepaid finance charges and fees in B26. To determine if the loan is within the monthly budget, compare the quantity in B6 with the amount in B24.

23. If your worksheet contains the proper formula, it should look like the one below provided cells B1 through B13 match the ones shown in step 11.

	A	B
15	Number of years	30
16	Points	1%
17	Rate	7.125%
18	APR	7.258%
19	Number of months	360
20	Down payment	7323.23
21	Amount of loan	117676.77
22	Cost of points	1176.77
23	Monthly principal and interest payment	803.40
24	Total monthly payment	1101.30
25	Total interest	171547.82
26	Amount of any prepaid finance charges and fees other than points	3500
27	Total cost of loan	176224.59
28	Is the loan within the budget?	No
29		

24. Now change the values in the worksheet to match the project assigned to you. Vary the sales price to get the total monthly payment as close to the maximum amount Penny can afford per month.

At the top of your worksheet, make sure you place your name and class in one of the cells. Save the worksheet and attach it to the Turn In link for this technology assignment.