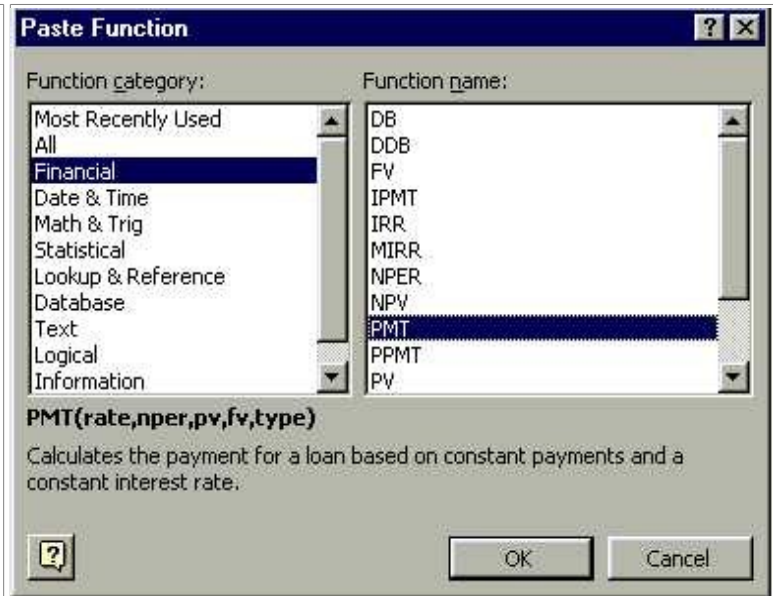


Using Excel to Make an Amortization Schedule

I. Calculating the Loan Payment.

Click on the **Paste Function** button or Insert Function. Select Financial from the first list and PMT from the second list.



In the box that comes up

- **Rate** is the *monthly* interest rate or APR/12
- **Nper** is the total number of payment periods
- **PV** is the amount being borrowed
- **FV** is the balance you want to have after the payments are made (0 since we want it all paid off)
- Ignore **Type**
- Click **OK**

Notice that you can use arithmetic operations in assigning the values. The monthly payment is then \$874.02. It is in red because it's negative, meaning that it's money paid out.

Make these selections:

Rate .075/12 = 0.00625

Nper 12*30 = 360

Pv 125000 = 125000

Fv 0 = 0

Type number = number

Calculates the payment for a loan based on constant payments and a constant interest rate.

Fv is the future value, or a cash balance you want to attain after the payment is made, 0 (zero) if omitted.

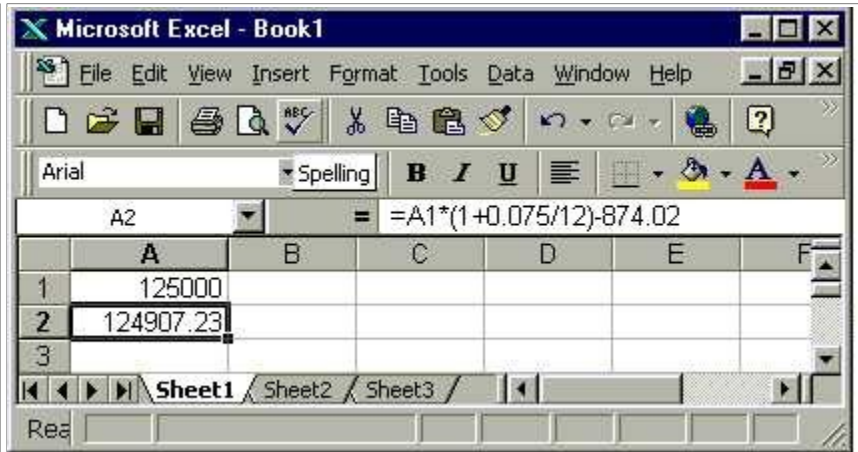
Formula result = (\$874.02)

II. Making the Amortization Schedule

An amortization schedule is a table of the loan balance after each payment, along with a breakdown of how much of the payment went to equity and how much was interest. These are easy to make in Excel once you've written the formula for the calculations. Let's think about how to calculate the loan balance after the first month in the first example. The balance is originally \$125,000. At the end of the first month, interest has accrued, but only 1/12 of the APR. So the interest is $125000 * (.075/12)$. But there's the payment of \$874.02, as well. So the balance is $(\text{previous balance} + \text{interest} - \text{payment}) = 125000 + 125000 * (.075/12) - 874.02$. We'll replace some of these with variables.

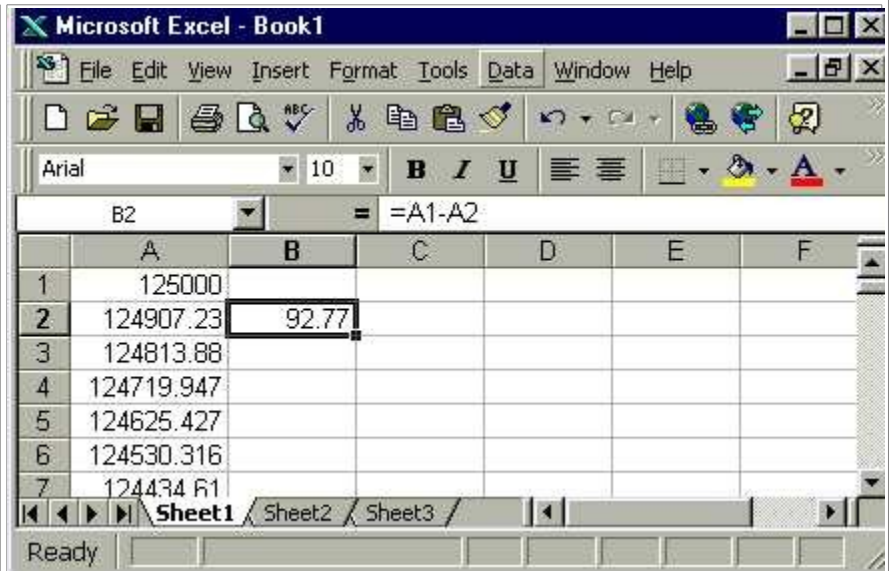
The first cell contains the original loan balance. For the loan balance at the end of the first month, enter the formula as shown in the cell just below.

To repeat this calculation for each month, put the cursor over the lower right corner and pull down. If you want the full schedule, that comes to 360 cells.



How much of each payment went to equity? That would be the difference between the new and old loan balances.

Again, to calculate for the remaining months, drag the lower right corner down the column.



The amount of the payment that was used to pay off interest would be the difference between the payment and the amount that went to equity.

