The PPMT Function in Microsoft Excel
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This tutorial explains the basics of the PPMT function in Microsoft Excel. The information covered here is very similar to that contained in our tutorial on the PMT function, which can be found at our website: computingatspscc.weebly.com. It is recommended that you familiarize yourself with that tutorial in order to best understand this one.

Why Use PPMT?
Whereas the PMT function tells you how much each payment will be, the PPMT function tells you how much of the principal is being paid in any given pay period. (To find out the inverse of this – how much of the *interest* is being paid in any given pay period – you can use an IPMT function.)

Parameters of the PPMT Function
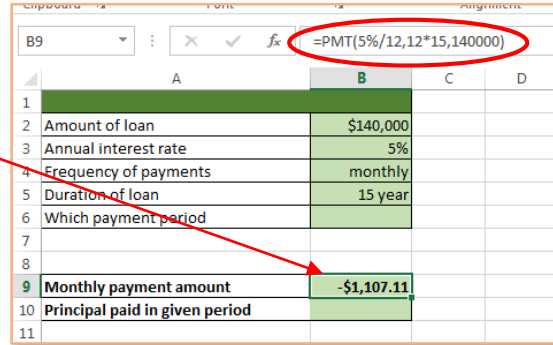The PPMT function has all of the same fields as the PMT function, plus one extra field – "Per."

Name/abbreviation in PMT function	What it means
Rate	Interest rate for the loan
Per	A specific payment period
Nper	Total number of payments to be made
PV (present value)	Amount of the loan (i.e. the principal)
FV (future value)	Amount you want to have left after final payment
Type	Whether payments are made at the beginning or end of the month

"Per" refers to the specific payment period for which you want to calculate the amount being paid toward principal.

An Example of the PPMT Function

Imagine that you have a $140,000 loan with a 5% interest rate. You are trying to pay this loan off in 15 years through monthly payments.

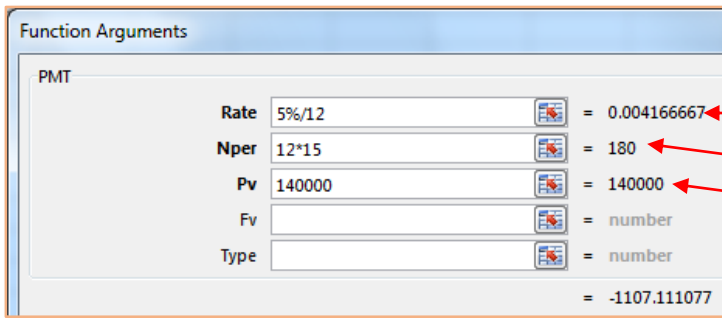Using the PMT function, we know that the monthly payment comes out to $1,107.11.

	A	B	C	D
1				
2	Amount of loan	$140,000		
3	Annual interest rate	5%		
4	Frequency of payments	monthly		
5	Duration of loan	15 year		
6	Which payment period			
7				
8				
9	Monthly payment amount	-$1,107.11		
10	Principal paid in given period			
11				

B9 ▼ : × ✓ fx =PMT(5%/12,12*15,140000)

To figure out how much of that $1,107.11 is going toward paying the principal in any given month, you would use the PPMT function. Notice that most of the values are identical between the PMT and the PPMT functions:
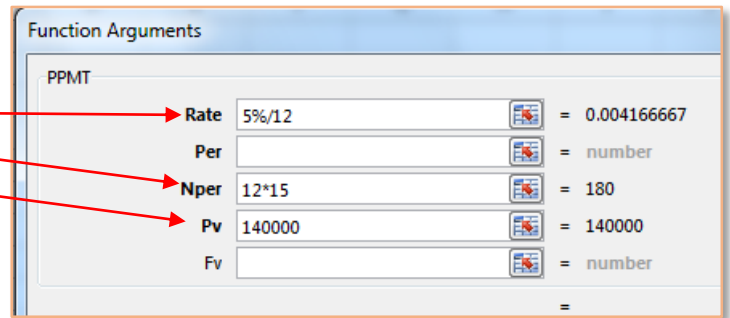
Function Arguments

PMT

Rate	5%/12	=	0.004166667
Nper	12*15	=	180
Pv	140000	=	140000
Fv		=	number
Type		=	number
		=	-1107.111077

Function Arguments

PPMT

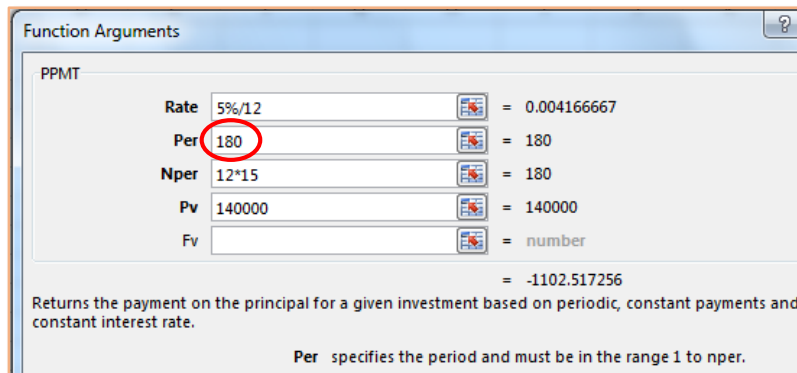|			
Rate	5%/12	=	0.004166667
Per		=	number
Nper	12*15	=	180
Pv	140000	=	140000
Fv		=	number
		=	

The missing piece in the PPMT function, of course, is the "Per." You can type in any number from 1 (which represents the first payment) to "Nper" (which represents your last payment).

If you input 1 in "Per" and click Okay, the function will tell you how much of your **first** payment is going toward principal.

Alternately, if you want to determine how much of your **last** payment is going toward principal, you would input 180. This is because there are 180 payments in total in this example, and you are interested in how much principal is being paid on that 180th payment.

Notice that the amount paid towards principal is much higher in the final payment than it is in the first payment.

You can also input any other number between 1 and the "Nper" value. Inputting 55, for instance, will tell you how much interest is being paid in the 55th payment.