

Lesson 2 PMT Functions

The PMT Function.

The Excel PMT (payment) function is an incredibly easy tool to use when calculating financial data. Assuming that payments are made consistently (repayment frequency and amount remaining constant) at a constant interest rate, we can use the PMT function to calculate monthly repayments of loans.

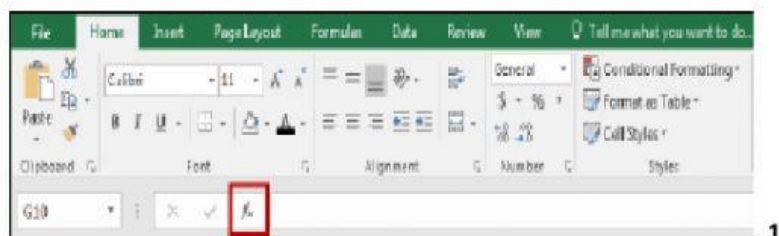
The PMT Function uses the following syntax = PMT(rate,nper,pv,{fv},{type}).

- . **Rate** – The interest rate per period.
- . **Nper** – the number of periods
- . **Pv** – the present value or the amount the future payments are worth presently.
- . **Fv (optional)** – The future value or cash balance that you want after the last payment.
- . **Type (optional)** – when you wish to make payments. The value 0 is for payments made at the end of the period. A value of 1 is for payments made at the beginning of the period. If you omit the type argument in the function, Excel assumes that the payment is to be made at the end of the period.

The following will explain how to use PMT function to calculate the monthly payments of a 5 year loan worth \$100,000 with an interest rate of 12%.

Loan Amount	Loan Years	Interest Rate	Monthly Payments
\$100,000.00	5	12%	

1. In the *Formula bar*, click on the **Insert Function** button:1



1

2. In the *Search for a function* field, type **PMT**. 2



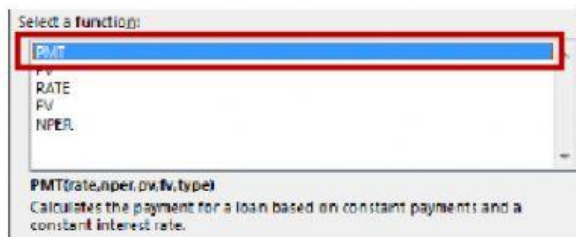
2

3. Click **Go**. 3



3

4. The *PMT* function will appear in the *Select a Function* results. Click the **PMT** function. 4



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5. Click **OK**
6. The *Function Argument* window will open.
7. In the *Rate* field, we are looking for the interest rate which in this example is 12%. We will take this interest rate of 12% and divide it by the number 12 (12 months in a year). To have excel calculate this value for us, we will type in **12/12**. 5
8. In the *Nper* field, we are looking for the number of payments during the lifetime of this load of 5 years . In the *Nper* field, type **5*12 (where 12 is the number of months in the year.)** 5
9. In the *Pv* field (present Value), enter the present value of the loan (\$100,000. 5
10. Click **OK**. 5

Function Arguments

PMT

Rate: 12/12 = 0.01

Nper: 5*12 = 60

Pv: 100000 = 100000

Fv: = number

Type: = number

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

Pv is the present value: the total amount that a series of future payments is worth now.

Formula result = -2224.444758

[Help on this function](#)

OK Cancel

5

11. The monthly payments will appear on the spreadsheet.

Questions

1. What syntax does PMT function use?

2. Explain all the syntax what they mean?

3. Give the steps to setup a spreadsheet with PMT function?