

EXCEL CASHFLOW FUNCTIONS HELP

PMT

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

Syntax

PMT(rate,nper,pv,fv,type)

For a more complete description of the arguments in PMT, see the PV function.

Rate is the interest rate for the loan.

Nper is the total number of payments for the loan.

Pv is the present value, or the total amount that a series of future payments is worth now; also known as the principal.

Fv is the future value, or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (zero), that is, the future value of a loan is 0.

Type is the number 0 (zero) or 1 and indicates when payments are due.

FV

Returns the future value of an investment based on periodic, constant payments and a constant interest rate.

Syntax

FV(rate,nper,pmt,pv,type)

For a more complete description of the arguments in FV and for more information on annuity functions, see PV.

Rate is the interest rate per period.

Nper is the total number of payment periods in an annuity.

Pmt is the payment made each period; it cannot change over the life of the annuity. Typically, pmt contains principal and interest but no other fees or taxes. If pmt is omitted, you must include the pv argument.

Pv is the present value, or the lump-sum amount that a series of future payments is worth right now. If pv is omitted, it is assumed to be 0 (zero), and you must include the pmt argument.

Type is the number 0 or 1 and indicates when payments are due. If type is omitted, it is assumed to be 0.

PV

Returns the present value of an investment. The present value is the total amount that a series of future payments is worth now. For example, when you borrow money, the loan amount is the present value to the lender.

Syntax

PV(rate,nper,pmt,fv,type)

Rate is the interest rate per period. For example, if you obtain an automobile loan at a 10 percent annual interest rate and make monthly payments, your interest rate per month is 10%/12, or 0.83%. You would enter 10%/12, or 0.83%, or 0.0083, into the formula as the rate.

Nper is the total number of payment periods in an annuity. For example, if you get a four-year car loan and make monthly payments, your loan has 4*12 (or 48) periods. You would enter 48 into the formula for nper.

Pmt is the payment made each period and cannot change over the life of the annuity. Typically,

pmt includes principal and interest but no other fees or taxes. For example, the monthly payments on a \$10,000, four-year car loan at 12 percent are \$263.33. You would enter -263.33 into the formula as the pmt. If pmt is omitted, you must include the fv argument.

Fv is the future value, or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (the future value of a loan, for example, is 0). For example, if you want to save \$50,000 to pay for a special project in 18 years, then \$50,000 is the future value.

You could then make a conservative guess at an interest rate and determine how much you must save each month. If fv is omitted, you must include the pmt argument.

Type is the number 0 or 1 and indicates when payments are due.

IPMT

Returns the interest payment for a given period for an investment based on periodic, constant payments and a constant interest rate. For a more complete description of the arguments in IPMT and for more information about annuity functions, see [PV](#).

Syntax

IPMT(rate,per,nper,pv,fv,type)

Rate is the interest rate per period.

Per is the period for which you want to find the interest and must be in the range 1 to nper.

Nper is the total number of payment periods in an annuity.

Pv is the present value, or the lump-sum amount that a series of future payments is worth right now.

Fv is the future value, or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (the future value of a loan, for example, is 0).

Type is the number 0 or 1 and indicates when payments are due. If type is omitted, it is assumed to be 0.

PPMT

Returns the payment on the principal for a given period for an investment based on periodic, constant payments and a constant interest rate.

Syntax

PPMT(rate,per,nper,pv,fv,type)

For a more complete description of the arguments in PPMT, see [PV](#).

Rate is the interest rate per period.

Per specifies the period and must be in the range 1 to nper.

Nper is the total number of payment periods in an annuity.

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

Fv is the future value, or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (zero), that is, the future value of a loan is 0.

Type is the number 0 or 1 and indicates when payments are due.