LRATE

Updated: 31 Mar 2016

Use the scalar valued function LRATE to calculate the annual interest rate for an annuity with an odd first period.

Syntax

```
Public Shared Function LRATE(
    ByVal PV As Double,
    ByVal LoanDate As Date,
    ByVal Pmt As Double,
    ByVal FirstPayDate As Date,
    ByVal NumPmts As Integer,
    ByVal Pmtpyr As Integer,
    ByVal DaysInYr As Double,
    ByVal FV As Double,
    ByVal IntRule As String,
    ByVal Guess As Double,)
```

Arguments

PV

> the principal amount of the loan or lease. *PV* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

LoanDate

> the date that the loan starts accruing interest. *LoanDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

Pmt

> the payment made each period. *@Pmt* cannot change over the life of the annuity. *Pmt* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

FirstPayDate

> the date that the first payment is due. *FirstPayDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

NumPmts

> the total number of payments to be recorded over the life of the loan. *NumPmts* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

Pmtpyr

> the number of loan payments made in a year. *Pmtpyr* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

DaysInYr

the denominator number of days to be used in the calculation of the interest amount in the odd first period. *DaysInYr* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

FV

the future value at the end of the loan. *FV* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

IntRule

Identifies the loan as conforming to the US Rule ("U") or the actuarial rule ("A") regarding the compounding of interest in the odd first period. *IntRule* is an expression that returns a **String**, or of a type that can be implicitly converted to **String**.

Guess

the user-supplied initial guess used in the first iteration of the rate calculation. *Guess* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Return Type
Double

Remarks
- If *DaysInYr* is NULL, then *DaysInYr* = 360
- If *FV* is NULL, then *FV* = 0
- If *IntRule* is NULL, then *IntRule* = "A"
- *FirstPayDate* must be greater than *LoanDate*
- *Pmtpyr* must be 1, 2, 3, 4, 5, 6, 12, 13, 24, 26, 52, or 365
- *NumPmts* must be greater than 1
- *DaysInYr* must be 360, 364, or 365
- *PV* must be greater than zero

See Also
- CUMIPMT - Cumulative interest paid on an annuity
- CUMLIPMT - Cumulative interest payments of a loan
- CUMLPPMT - Cumulative principal payments of a loan
- CUMPRINC - Cumulative principal paid on an annuity
- EFFECT - Effective annual interest rate
- IPMT - Interest portion of an annuity payment
- LIPMT - Interest portion of a loan payment
- LPMT - Periodic payment of a loan
- LPMTSCHED - Generate loan amortization with balloon payment and other parameters
- LPPMT - Principal portion of a loan payment

- NUMPMTS - Total number of payments over the life of the loan
- PMT - Annuity periodic payment
- PMTSCHED - Payment schedule of a loan
- PPMT - Principal portion of an annuity payment
- TOTALINT - Total interest amount of a loan