Loan repayments (bank loan etc.)

P principal amount

f number of payments per year

y interest rate, in decimal format, e.g. 0.08 meaning 8%

n number of years

r repayment per period

Using percentages

P principal amount

f number of payments per year

y interest rate, e.g. 8 meaning 8%

n number of years

r repayment per period

Example

Equipment, vehicles etc.

P 20,000 coffee machine for commercial use

f 12

y 8

n 5

r = $405.52 per month

Assumptions

Payments occur at the end of the time period

Rates are expressed in decimal annual amounts, e.g 0.12 = 12% p.a. = 1% / month

Type in the example figures and check that the result is correct if using the formula in a system

Full example

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| P | 100 |  |  |  |  |
| F | 4 |  |  |  |  |
| Y | 8 |  |  |  |  |
| N | 2 |  |  |  |  |
|  |  |  |  |  |  |
| R | 13.65098 |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Interest = 8/100 x (1/4) x prev balance | | |
|  |  |  |  |  |  |
| Month |  | Principal | Repayment | Interest |  |
|  |  | Owing |  |  |  |
|  |  |  |  |  |  |
|  |  | 100.0000 |  |  |  |
| 1 |  | 88.3490 | -13.6510 | 2.0000 |  |
| 2 |  | 76.4650 | -13.6510 | 1.7670 |  |
| 3 |  | 64.3433 | -13.6510 | 1.5293 | = 8/100 x (1/4) x 76.4650 |
| 4 |  | 51.9792 | -13.6510 | 1.2869 |  |
| 5 |  | 39.3678 | -13.6510 | 1.0396 |  |
| 6 |  | 26.5042 | -13.6510 | 0.7874 |  |
| 7 |  | 13.3833 | -13.6510 | 0.5301 |  |
| 8 |  | 0.0000 | -13.6510 | 0.2677 |  |