

Format for Spreadsheet Functions on Excel[®]

Present worth:

= PV($i\%$, n , A , F)

for constant A series

= NPV($i\%$,second_cell:last_cell) + first_cell

for varying cash flow series

Future worth:

= FV($i\%$, n , A , P)

for constant A series

Annual worth:

= PMT($i\%$, n , P , F)

for single amounts with no A series

Number of periods (years):

= NPER($i\%$, A , P , F)

for constant A series

Rate of return:

= RATE(n , A , P , F)

for constant A series

= IRR(first_cell:last_cell)

for varying cash flow series

Interest rate:

= EFFECT ($r\%$, m)

for nominal r , compounded m times per *period*

= NOMINAL ($i\%$, m)

for effective i , compounded m times per *year*

Depreciation:

= SLN(P , S , n)

Straight line depreciation for each period

= DDB(P , S , n , t , d)

Double declining balance depreciation for period t at rate d

= DB(P , S , n , t)

Declining balance, rate determined by the function

= VDB(P , S , n , start_period, end_period, factor)

Switch from declining balance to straight line depreciation

= VDB(P ,0, n ,MAX(0, $t - 1.5$), MIN(n , $t - 0.5$), factor)

MACRS depreciation for period t

Logical IF function:

= IF(logical_test,value_if_true,value_if_false)

for logical two-branch operations

Notation for Spreadsheet and Calculator Functions

Value Sought	Spreadsheet	Calculator
Present worth	= PV($i\%$, n , A , F)	PV(i , n , A , F)
Future worth	= FV($i\%$, n , A , P)	FV(i , n , A , P)
Annual worth	= PMT($i\%$, n , P , F)	PMT(i , n , P , F)
Rate of return	= RATE(n , A , P , F)	i (n , A , P , F)
Number of years	= NPER($i\%$, A , P , F)	n (i , A , P , F)

Spreadsheet Function to Display a Factor's Numerical Value

Factor Notation	Spreadsheet Function
$(P/F, i, n)$	= -PV(i , n ,1)
$(F/P, i, n)$	= -FV(i , n ,1)
$(A/F, i, n)$	= -PMT(i , n ,1)
$(F/A, i, n)$	= -FV(i , n ,1)
$(P/A, i, n)$	= -PV(i , n ,1)
$(A/P, i, n)$	= -PMT(i , n ,1)

(Note: The PV, FV, and PMT functions on spreadsheets and many calculators change the sense of the sign on the displayed result. Precede the spreadsheet function with a minus sign to retain the same sign; change the calculator's answer to retain the same sign.)