

## CFP Examination – Financial Formulae Reprint

The following formulae page will be reprinted on the CFP Examination. The list of formula is not all-inclusive and others may be necessary to answer questions on the CFP Examination. Candidates writing the CFP Examination should bring a financial calculator to their examination sitting. No calculators will be supplied at the writing centre.

### Legend

FV = future value	e = effective, annual rate of return
PV = present value	k = periodic rate of return (i/m)
i = nominal, annual rate of return	r = real, annual rate of return
n = number of years	y = yield to maturity, or IRR
m = number of compounding periods per year	infl = annual rate of inflation
$I_t$ = amount returned or paid in year $t$	

The effect of non-annual compounding:  $FV_n = PV(1 + i/m)^{n \times m}$

Simple interest (return) calculation:  $I_t = PV \times i$

Effective, annual rate:  $e = (1 + k)^m - 1$

Future value of a single payment:  $FV_n = PV(1 + i)^n$

Present value of a single payment:  $PV = \frac{FV_n}{(1 + i)^n}$

Future value of a stream of payments:  $FV = \frac{((1 + k)^n - 1)}{k}$

Present value of a stream of payments:  $PV = \frac{1 - \left(\frac{1}{(1 + k)^n}\right)}{k}$

Real rate of return:  $r = \frac{i - infl}{1 + infl}$