Example:

Compound Interest

Example

Amount: $A = P*(1 + r)^n$

Eff. Rate: $ER = (1 + r)^n - 1$

where P = principal, r = interest per period, n = no. of periods

1000	**Principal ($)**
2.4	**Annual Rate of Interest (%)**
12	**No. of periods per year**
5	**Years**
Calculate! Clear	
1127.36	**Amount ($)**
2.427	**Effective Annual Rate (%)**

$1,000 is invested in an account paying 2.4% interest for 5 years. At the end of 5 years the account will have $1,127.36. The effective annual rate is 2.427%.

$$A = P(1+r)^n$$

$$r = \frac{0.024}{12} = 0.002$$

$$n = 5*12 = 60$$

$$A = 1000(1.002)^{60} = 1127.36174... \Rightarrow 1127.36$$

$$ER = (1.002)^{12} - 1 = 0.024265767... \Rightarrow 0.02427$$

Return to Financial Calculations