Simple Interest

Simple Interest Formula: $I = Prt$

Time of Short-Term Loan: $t = \dfrac{\#\text{ of days of the loan}}{365}$

Time of Short-Term Loan using Banker's Rule: $t = \dfrac{\#\text{ of days of the loan}}{360}$

Future Value of Simple-Interest Loan: $A = P + I = P(1 + rt)$

Compound Interest

The Compound Interest Formula: $A = P\left(1 + \dfrac{r}{n}\right)^{nt}$

Effective Interest Rate Formula: $E = \left(1 + \dfrac{r}{n}\right)^{n} - 1$

Time to Reach Investment Goal: $t = \dfrac{\ln(A/P)}{n\ln(1 + r/n)} = \dfrac{\log(A/P)}{n\log(1 + r/n)}$

The Future Value of an Annuity: $A = \dfrac{nR\left[\left(1 + \frac{r}{n}\right)^{nt} - 1\right]}{r}$

Regular Payment for Annuity: $R = \dfrac{rA}{n\left[\left(1 + \frac{r}{n}\right)^{nt} - 1\right]}$.

Mortgages

Monthly Payment on a Fixed-Rate Mortgage: $R = \dfrac{Pr/n}{1 - (1 + r/n)^{-nt}}$ where $n = 12$ and t is the term of the mortgage.

Investing in Stocks & Bonds

Current Yield: $\text{YLD\%} = \dfrac{\text{DIV}}{\text{CLOSE}}$

The P/E Ratio: $\text{P/E} = \dfrac{\text{CLOSE}}{\text{Annual Earnings per Share}}$

Annual Earnings Per Share: $\text{Annual Earnings per Share} = \dfrac{\text{CLOSE}}{\text{P/E}}$.