Simple Interest
\[ I = Prt \]
- \( P \) = Principle
- \( r \) = Interest Rate
- \( t \) = Time in years

Maturity Simple Interest Value
\[ A = P(1 + rt) \]

Compounding Interest
\[ A = P(1 + \frac{r}{n})^{nt} \]

Present Value for Compounding Interest
\[ P = \frac{A}{(1 + \frac{r}{n})^{nt}} \]

Payment Formula (also Mortgage Payment)
\[ PMT = A \times \left( \frac{\frac{r}{n}}{1 - (1 + \frac{r}{n})^{-nt}} \right) \]
- \( n \) = # of payments per year (usually 12)
- \( A \) = Mortgaged amount on loan

Loan Payoff Formula
\[ A = PMT \left( \frac{1 - (1 + \frac{r}{n})^{-u}}{\frac{r}{n}} \right) \]
- \( u \) = # of unpaid payments

APR (Annual Percentage Rate)
\[ APR = \frac{2nr}{n+1} \]
- \( n \) = # of payments

Net Asset Value of a Mutual Fund
\[ NAV = \frac{A-L}{N} \]
- \( A \) = Total Assets
- \( L \) = Total Liabilities
- \( N \) = # of outstanding shares