

Quantitative Modeling Reference Sheet

Simple Interest	$I = prt$
Compound Interest	$B = p\left(1 + \frac{r}{n}\right)^{nt}$
Annual Percentage Yield	$\left(1 + \frac{r}{n}\right)^n - 1$
Future Value of a Periodic Investment	$B = \frac{p\left(\left(1 + \frac{r}{n}\right)^{nt} - 1\right)}{\frac{r}{n}}$
Present Value of a Single Deposit Investment	$P = \frac{B}{\left(1 + \frac{r}{n}\right)^{nt}}$
Monthly Payment Formula	$M = \frac{p\left(\frac{r}{12}\right)\left(1 + \frac{r}{12}\right)^{12t}}{\left(1 + \frac{r}{12}\right)^{12t} - 1}$
Skid Mark Formula	$S = \sqrt{30Dfn}$
Yaw Mark Formula	$S = \sqrt{15fr}, \text{ where}$ $r = \frac{C^2}{8M} + \frac{M}{2}$