

Some Useful Formulas

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

$$P = S(1 + r)^{-n}$$

$$r_e = \left(1 + \frac{r}{n}\right)^n - 1$$

$$S = Pe^{rt}$$

$$P = Se^{-rt}$$

$$r_e = e^r - 1$$

$$A = Ra_{\overline{n}|r} = R \frac{1 - (1 + r)^{-n}}{r}$$

$$R = \frac{A}{a_{\overline{n}|r}} = A \frac{r}{1 - (1 + r)^{-n}}$$

$$S = Rs_{\overline{n}|r} = R \frac{(1 + r)^n - 1}{r}$$

$$\sum_{i=1}^{\infty} ar^{i-1} = \frac{a}{1 - r}$$

$$\sum_{i=1}^k ar^{i-1} = \frac{a(1 - r^k)}{1 - r}$$