Appendices

Appendix 1: Summary of Formulas

Be sure to ask your instructor which of these must be memorized!!!

(7.1) $S_n = a_1 + a_1 r + a_1 r^2 + a_1 r^3 + \ldots . a_1 r^{n-1} = \frac{a_1 r^n - a_1}{r-1} = a_1 \frac{r^n - 1}{r-1}$

(7.2) $A = P(1 + i)^m$ where $i = \frac{r}{n}$

(7.3) $A = Pe^{rt}$

(7.4) $r_{eff} = (1+i)^n - 1$ and (7.5) $r_{eff} = e^r - 1$

(7.6) $FV = P \frac{(1+i)^m - 1}{i}$ and (7.7) $P = FV \frac{i}{(1+i)^m - 1}$

(7.8) $PMT = L \frac{i}{1-(1+i)^{-m}}$

Note: Some texts make distinctions between **ordinary annuities** and **annuities due.** The formulas given in this handout is equivalent to the **ordinary annuity** concept. (The difference lies in whether payments are taken before the interest is calculated or after - payments at the first of each month or at the end - it's a slight difference of counting the value of *n*.) If the problems in a future class (or if you are doing extra problems in some other text) indicates it's an annuity due, then just use the appropriate formula given to you for that concept.