Formula Sheet for Econ 367 Midterm 2

- <u>Factor Model</u>

$$r_i = E(r_i) + \beta_{i1}F_1 + \beta_{i2}F_2 + \ldots \beta_{ik}F_k + e_i$$

$$E(r_i) = r_f + \lambda_1\beta_{i1} + \lambda_2\beta_{i2} \ldots + \lambda_k\beta_{ik}$$

- <u>Convexity</u>

$$w_t = [CF_t / (1+y)^t] / \text{Price}$$

$$\text{Convexity} = \frac{1}{(1+y)^2}\Sigma_{t=1}^{n} w_t (t + t^2)$$