

The following formulas may or may not be helpful.

$$e \approx 2.71828$$

$$F = (S-I) e^{rT}$$

$$F = S e^{(r-q)T}$$

$$F = S e^{(r-rf)T}$$

$$F = S e^{(r+u-q)T}$$

$$F e^{yt} = S e^{cT}$$

$$\text{Basis} = S - F$$

$$h = N_F / N_A$$

$$N_F^* = (h^*) N_A$$

$$N^* = (h^*) N_A / Q_F$$

$$N^* = \beta (V_A / V_F)$$

$$\hat{r} = (r^* T^* - rT) / (T^* - T)$$

$$\text{FRA} = L(R_K - R_F) (T_2 - T_1) e^{-R_2 T_2}$$

$$V_F = 10,000 [100 - .25R]$$

$$\Delta B / \Delta y = -BD \quad \Delta B = -BD \Delta y$$

$$V = B_{\text{fix}} - B_{\text{fl}}$$

$$B_{\text{fix}} = \sum c_i e^{-r_i t_i} + L e^{-r_m t_m}$$

$$\text{Mgn} = \text{Max}\{[\text{sale proceeds} + .2S - \text{otm}], [\text{sale proceeds} + .1S]\}$$

$$c \leq C \leq S$$

$$C \geq c \geq \max\{S - K, 0\}$$

$$c \geq S - K e^{-rT}$$

$$c \geq S - (K e^{-rT} + D)$$

$$s + p = K e^{-rT} + c$$

$$\Delta = (c_u - c_d) / (S_u - S_d)$$

$$\delta_p = \sum X_i \delta_i$$

$$\gamma_p = \sum X_i \gamma_i$$

$$F = S e^{rT}$$

$$F = (S+U) e^{rT}$$

$$F = S e^{(r+u)T}$$

$$c = r + u - q$$

$$F e^{yt} = S e^{(r+u-q)T}$$

$$f_i = (F_i - K) e^{-r_i t_i}$$

$$\text{Basis} = (S^* - F) + (S - S^*)$$

$$h^* = \rho (\sigma_S / \sigma_F)$$

$$\rho = \sigma_{12} / \sigma_1 \sigma_2$$

$$N^{**} = (h^*) V_A / V_F = [(h^*) N_A / Q_F] (S / F)$$

$$N^* = (\beta - \beta^*) (V_A / V_F)$$

$$Q = 100 - R$$

$$D = [\sum t_i c_i e^{-y(t_i)}] / B$$

$$D_p = \sum w_i D_i$$

$$N^* = P D_p / V_F D_F$$

$$V = S B_A - B_B$$

$$B_{\text{fl}} = k^* e^{-r_1 t_1} + L e^{-r_1 t_1}$$

$$p \leq K e^{-rT}; \quad P \leq K$$

$$P \geq \max\{K - S, 0\}$$

$$p \geq K e^{-rT} - S$$

$$p \geq (K e^{-rT} + D) - S$$

$$s + p = (K e^{-rT} + D) + c$$

$$c = f(S, K, T, r, \sigma, D)$$

$$v_p = \sum X_i v_i$$

$$c = [c_u P + c_d (1-P)] e^{-r \Delta t}; \text{ where } P = (e^{r \Delta t} - d) / (u - d); \text{ } u = e^{\sigma(\text{sqrt}(\Delta t))}; \text{ and } d = 1/u$$

$$c = [c_{uu} P^2 + 2c_{ud} P(1-P) + c_{dd} (1-P)^2] e^{-r 2 \Delta t}$$

$$c = S_0 B[a, N, P'] - K e^{-r N \Delta t} B[a, N, P]$$

$$c = S N(d_1) - K e^{-rT} N(d_2); \text{ where } d_1 = [\ln(S/K) + (r + \sigma^2/2)T] / \sigma(T)^{1/2}; \text{ and } d_2 = d_1 - \sigma(T)^{1/2}$$

$$\Delta P = \Delta x_1 + \Delta x_2$$

$$\sigma_P^2 = \sigma_1^2 + \sigma_2^2 + 2\rho \sigma_1 \sigma_2$$

$$\sigma_n^2 = 1/(n-1) \sum (u_i - \bar{u})^2; \text{ or } \sigma_n^2 \approx 1/n \sum u_i^2$$

$$\sigma_n^2 = \lambda \sigma_{n-1}^2 + (1-\lambda) u_n^2$$