

## Képletgyűjtemény

$$1. c = S * N(d_1) - X * e^{-r_f * T} * N(d_2) \quad 2. d_1 = \frac{\ln\left(\frac{S}{X}\right) + r_f * T}{\sigma * \sqrt{T}} + \frac{\sigma * \sqrt{T}}{2}$$

$$3. d_2 = d_1 - \sigma * \sqrt{T} \quad 4. m = \frac{S * (u - d)}{c_u - c_d} \quad 5. c = \frac{c_u * \left(\frac{e^{r_f * t} - d}{u - d}\right) + c_d * \left(\frac{u - e^{r_f * t}}{u - d}\right)}{e^{r_f * t}}$$

$$6. m = \frac{S * (u - d)}{p_u - p_d} \quad 7. p = \frac{S * (d - e^{r_f * t}) + m * p_d}{m * e^{r_f * t}} \quad 8. u = e^{\sigma * \sqrt{\frac{T}{n}}} \quad 9. F = S * e^{(r-d) * t}$$

$$10. p = X * e^{-r_f * t} + c - S \quad 11. NPV = \sum_{i=1}^n p_i * NPV_i \quad 12. S(NPV) = \sqrt{\sum_{i=1}^n p_i * (NPV_i - NPV)^2}$$

$$13. Q = \sqrt{\frac{2 * U * F}{CP}} \quad 14. Q = \sqrt{\frac{2 * U * F}{CP * \left(1 - \frac{d}{r}\right)}} \quad 15. C = \sqrt{\frac{2 * D * F}{i}}$$

$$16. ANPV = NPV_I + NPV_F + C + P \quad 17. Q = 3 * \sqrt[3]{\frac{3 * C * \sigma^2}{i}} \quad 18. r^* = r - L * T * r_d * \frac{1 + r}{1 + r_D}$$

$$19. r^* = r * (1 - T * L) \quad 20. GPV = \sum_{k=1}^n \frac{CF_k}{(1 + r)^k} \quad 21. V_T = D * T_C$$

$$22. WACC = r_E * \frac{E}{D + E} + r_D * (1 - T_C) * \frac{D}{D + E} \quad 23. r_E = r_A + (r_A - r_D) * \frac{D}{E}$$

$$24. IRR = r_A + \frac{NPV_A}{NPV_A - NPV_F} * (r_F - r_A) \quad 25. r_p = \sum_{i=1}^n w_i * r_i$$

$$26. s_p = \sqrt{\sum_{i=1}^n \sum_{j=1}^n w_i * w_j * s_i * s_j * R_{ij}} \quad 27. AF_{r,n} = \frac{(1 + r)^n - 1}{(1 + r)^n * r} \quad 28. ARR = \frac{\frac{1}{n} * \sum_{i=1}^n E_i}{P_0}$$

$$29. KE = \frac{P_0}{AF_{r,n}} \quad 30. IM = \prod_{j=1}^n (1 + i_j)^j \quad 31. P = c * \frac{1 - \left(\frac{1 + g}{1 + r}\right)^n}{r - g} \quad 32. PI = \frac{GPV}{P_0}$$

$$33. w_D = \frac{\sigma_E^2 - Cov(r_D : r_E)}{\sigma_E^2 + \sigma_D^2 - 2 * Cov(r_D : r_E)} \quad 34. \beta_i = \frac{Cov(r_i, r_m)}{\sigma_m^2} \quad 35. \beta_A = \frac{\sum_{i=1}^n w_i * Cov(r_A, r_i)}{\sigma_m^2}$$

$$36. E(r_i) = r_f + [E(r_m) - r_f] * \beta_i \quad 37. \beta_A = \frac{w_A * \sigma_A^2 + w_B * \sigma_A * \sigma_B * R_{AB}}{\sigma_m^2}$$

$$38. NPV = -P_0 + \sum_{i=1}^n \frac{C_i}{(1 + r)^i} \quad 39. DIV_1 = DIV_0 + \alpha * (\beta * EPS_1 - DIV_0)$$

40.	$DF_{r,n} = \frac{1}{(1+r)^n}$	41.	$\varepsilon = \frac{\frac{\Delta DV}{DV_0}}{\frac{\Delta IV}{IV_0}} = \frac{\frac{DV_1 - DV_0}{DV_0}}{\frac{IV_1 - IV_0}{IV_0}}$
42.	$\sigma_{NPV} = \sqrt{\sum_{i=1}^n p_i * [NPV_i - E(NPV)]^2}$	43.	$\sigma_{rel} = \frac{\sigma_{NPV}}{E(NPV)}$
44.	$c_u = \max(S_u - X; 0)$	45.	$c_d = \max(S_d - X; 0)$
46.	$u = \frac{Su}{S}$	47.	$d = \frac{Sd}{S}$
48.	$r_i = \left[ \frac{P_1}{P_0} \right] - 1 \quad r_n = \left[ \frac{P_1}{P_0} - 1 \right] \times \frac{1}{t} \quad r_{eff} = \left[ \frac{P_1}{P_0} \right]^{\frac{1}{t}} - 1 \quad r_{int} = \frac{\ln \left[ \frac{P_1}{P_0} \right]}{t}$		
49.	$A = S_t - S_{t-1}$	50.	$g_t = \frac{S_t}{S_{t-1}} - 1$
51.	$z_t = \ln \left( \frac{S_t}{S_{t-1}} \right)$	52.	$\bar{r} = \frac{1 * r_1 + 1 * r_2}{2}$
53.	$\bar{r} = \frac{1 * \ln(r_1) + 1 * \ln(r_2)}{2}$	54.	$R_{xy} = \frac{\frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x}) \times (y_i - \bar{y})}{s_x \times s_y}$
55.	$s_p = \sqrt{w_A^2 * s_A^2 + w_B^2 * s_B^2 + 2 * w_A * w_B * s_A * s_B * \rho_{AB}}$		
56.	$w_A = \frac{s_B^2 - Cov(r_A; r_B)}{s_A^2 + s_B^2 - 2 * s_A * s_B * R_{AB}}$	57.	$Cov(r_A; r_B) = s_A * s_B * R_{AB}$
58.	$s_p^2 = \lim_{n \rightarrow \infty} \frac{N}{N^2} * s^2 + \frac{N^2 - N}{N^2} * Cov = Cov$	59.	$r_i = r_f + (r_m - r_f) \times \beta_i$
60.	$\beta_i = \frac{COV(x, M)}{s_M^2}$	61.	$\beta_i = \frac{Cov(r_i; r_m)}{\sigma_m^2}$
62.	$\beta_p = \sum_{i=1}^n w_i \times \beta_i$	63.	$\beta_1 = \frac{w_1 * \sigma_1^2 + w_2 * Cov_{12}}{\sigma_p^2}$
64.	$E(r_i) = r_f + [E(r_m) - r_f] * \beta_i$	65.	$\beta_{eszkoz} = \beta_{bevétel} * \left( \frac{PV(R) - PV(VC)}{PV(A)} \right)$