Su 2012

Key to 9:15a + 11:15a

3. $x^3 \left(NPV = -5{,}000{,}000 + \left(\frac{150{,}000}{r(\frac{1}{12}) - .01}\right)\left(1 - \left(\frac{1.01}{1+r(\frac{1}{12})}\right)^{65}\right)\left(\frac{1}{1+r(\frac{1}{12})}\right)^{7} \right.$ (42)

$+6 \left(r(1) = .0005 1 + 1.5(.07) = .1055 1 \right.$ (18)

$+6 \left(r(\tfrac{1}{12}) = (1+r(1))^{\frac{1}{12}} - 1 \right.$ (14)

4. $+3\ C = S(N(d_1)) - PV(K)\,N(d_2)$

$+3\ d_1 = \frac{\ln\left(\frac{S}{PV(K)}\right)}{\sigma\sqrt{T}} + \frac{\sigma\sqrt{T}}{2}$

$+3\ d_2 = d_1 - \sigma\sqrt{T}$

$S = \left(\frac{50{,}000}{r(\frac{1}{12})}\right)\left(1 - \left(\frac{1}{1+r(\frac{1}{12})}\right)^{36}\right)\left(\frac{1}{1+r(1)}\right)^{3}$ (13)

$+3 \left(r(1) = .0005 1 + 1.9(.07) = .1335 1 \right.$ (8)

$+3 \left(r(\tfrac{1}{12}) = (1+r(1))^{\frac{1}{12}} - 1 \right.$ (6)

$+3 \left(PV(K) = \frac{2{,}000{,}000}{(1.0033)^{3}} \right.$ (24)

$\sigma = .58$ +9

$T = 3$ +6

$N(d_1)$ + $N(d_2)$ from tables or Excel