

Formulas ANADEC

sc.valencia606

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$$ES : TEA \rightarrow TES = ES$$

$$ES : (1 + TEP)^n = (1 + TEA) \Rightarrow TEP = (1 + TEA)^{\frac{1}{n}} - 1$$

$$TES = (1 + 5.15\%)^{\frac{1}{2}} - 1 = 2.54\% ES$$

$$NS/TV : TEA \rightarrow TV \rightarrow NS/TV$$

$$TEA = (1 + x)^n - 1 \Rightarrow x = (1 + TEA)^{\frac{1}{n}} - 1$$

$$TV : x = (1 + 5.15\%)^{\frac{1}{4}} - 1 = 1.26\% TV$$

$$NS/TV : TV * 2 = 2, 52\% NS/TV$$

$$NB/MV : TEA \rightarrow MV \rightarrow NB/MV$$

$$MV : x = (1 + 5.15\%)^{\frac{1}{12}} - 1 = 0.42\% MV$$

$$NB/MV : MV * 2 = 0.84\% NB/MV$$

$$NA/SA : TEA \rightarrow SV \rightarrow SA \rightarrow NA/SA$$

$$SV : x = (1 + 5.15\%)^{\frac{1}{2}} - 1 = 2.54\% SV$$

$$SA : 1 - \frac{1}{1 + SV} = 1 - \frac{1}{1 + 2.54\% SV} = 2.48\% SA$$

$$NA/SA : 2 * SA = 2 * 2.48\% SA = 4.95\% NA/SA$$

$$VP' = VP_U - VP_A$$

$$VP_U = A \left(\frac{(1+i)^n - 1}{i(1+i)^n} \right)$$

$$VP_A = \frac{G}{i} \left(\frac{(1+i)^n - 1}{i(i+1)^n} + \frac{n}{(i+1)^n} \right)$$

//

$$VP = D_1 \left(\frac{1 - \left(\frac{1+g}{1+i} \right)^n}{i - g} \right)$$

$$VP = D_1 \left(\frac{1 - \left(\frac{1+g}{1+i} \right)^n}{i - g} \right) / (1+i)^5$$

$$VP = (108000') \left(\frac{1 - \left(\frac{1+0.12}{1+i} \right)^8}{i - 0.12} \right) / (1+i)^5$$

$$VP = 764.9601148' / (1+i)^5 = 430.0124005'$$

// //

$$D_{14} = D_{13}(1 - 0.08)$$

$$D_{13} = D_6(1 + g')^7; \quad g' = 0.12$$

$$D_{13} = 108000'(1 + 0.12)^7 = 238753.592'$$

$$D_{14} = 238753.592'(1 - 0.08) = 219653.3046'$$

$$VP' = D_{14} \left(\frac{1 - \left(\frac{1-0.08}{1+i} \right)^{13}}{i + 0.08} \right)$$

$$VP = D_{14} \frac{VP'}{(1+i)^{13}} = 219653.3046'$$

//

$$878992.0636' = A \left(\frac{(1+i)^n - 1}{i(1+i)^n} \right) + A$$

$$878992.0636' = A \left(\frac{(1+i)^n - 1}{i(1+i)^n} + 1 \right); n = 5$$

$$878992.0636' = A \left(\frac{(1 + (0.1221))^5 - 1}{(0.1221)(1 + (0.1221))^5} + 1 \right)$$

$$878992.0636' = 4.586101381'A \Rightarrow A = 191664.3333'$$

1 Introduction