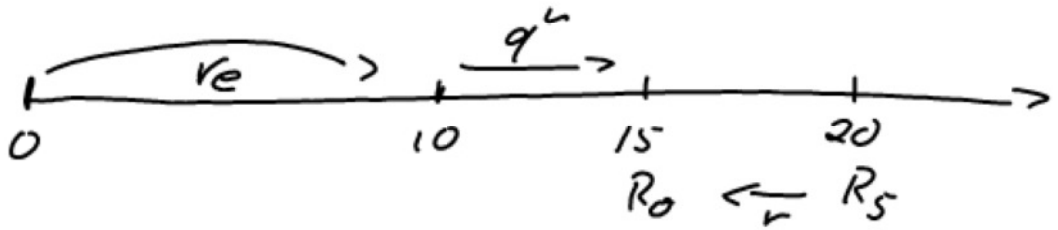
3) $n_A = 10$; $m = 3$ (vorschüssig) ; $i = 0{,}05$



$$Ve = 500 \cdot \left(3 + \frac{0{,}05 \cdot (3+1)}{4}\right) = 1.550{,}-$$

$$R_{10} = 1.550 \cdot \frac{1{,}05^{10} - 1}{1{,}05 - 1} = 19.495{,}73$$

$$R_{15} = 19.495{,}73 \cdot 1{,}05^{5} = 24.882{,}05 = R_0$$

$$R_{20} = 24.882{,}05 \cdot 1{,}05^{1} = 31.756{,}50$$

$$31.756{,}5 = r \cdot \frac{1{,}05^{5} - 1}{0{,}05} \Rightarrow r = 5.747{,}13$$