

① $k = ? \quad m = 2 \quad a = 11037,26 \text{ грн.} \quad A_0 \Pi_0 \leftarrow \text{зап.}$

$i_1 + i_2 + i_3 + i_4 + i_5 = 27902,87 \quad p = 8\% \text{ (p-a-d)}$

$(a - b_1) + (a - b_2) + (a - b_3) + (a - b_4) + (a - b_5) = 27902,87$

$5a - O_5 = 27902,87 \quad \tau = 1 + \frac{8/2}{100}$

$O_5 = 5 \cdot 11037,26 - 27902,87 \quad \tau = 1,04$

$O_5 = 27283,43 = b_1 \cdot \frac{\tau^5 - 1}{\tau - 1}$

$b_1 = \frac{27283,43 \cdot (1,04 - 1)}{1,04^5 - 1} \Rightarrow b_1 = 5037,26 \text{ грн.}$

$a = b_1 \cdot \tau^{2n} \Rightarrow 1,04^{2n} = \frac{a}{b_1} = \frac{11037,26}{5037,26}$

$1,04^{2n} = 2,191123746$

$2n = \frac{\log 2,191123746}{\log 1,04}$

$2n = 20 \Rightarrow n = 10 \text{ років.}$

$K = b_1 \cdot \frac{\tau^{2n} - 1}{\tau - 1} = 5037,26 \cdot \frac{1,04^{20} - 1}{1,04 - 1} = 150000 \text{ грн} = K$

$b_{20} = b_1 \cdot \tau^{19} = 10612,75 \text{ грн.}$

mn	K	$i(4\%)$	b	a
19	20817,32	832,69	10204,57	11037,26
20	10612,75	424,51	10612,75	11037,26

$i_{20} = \frac{10612,75 \cdot 4}{100}$

$b_{19} = \frac{b_{20}}{\tau} =$

$K_{19} = \frac{100 \cdot i_{19}}{p/m} = \frac{100 \cdot 832,69}{4} = 20817,32$