

Маментам. D3 N2.

N1 $p = 0,8 \quad n = 100 \quad K = 85$

$$P = \binom{K}{n} C_{100}^{85} \cdot p^{85} \cdot q^{100-85} = \frac{100!}{85! \cdot (100-85)!} \cdot 0,8^{85} \cdot (1-0,8)^{100-85} = 0,0481$$

N2 $p = 0,0004 \quad n = 5000 \quad K = 0 \quad (K=2)$

a) $p \approx \frac{(5000 \cdot 0,0004)^0}{0!} \cdot e^{-5000 \cdot 0,0004} = 0,1353$

б) $p \approx \frac{(5000 \cdot 0,0004)^2}{2!} \cdot e^{-5000 \cdot 0,0004} = 0,2707$

N3 $p = 0,5 \quad n = 144 \quad K = 70$

$$P = \frac{144!}{70! \cdot (144-70)!} \cdot 0,5^{70} \cdot (1-0,5)^{144-70} = 0,0628$$

N4. a) $\frac{C_7^2}{C_{10}^2} \cdot \frac{C_9^2}{C_{11}^2} = 0,3055$

б) $\frac{C_7^1}{C_{10}^2} \cdot \frac{C_9^1}{C_{11}^2} + \frac{C_7^2}{C_{10}^2} \cdot \frac{C_9^0}{C_{11}^2} + \frac{C_7^0}{C_{10}^2} \cdot \frac{C_9^2}{C_{11}^2} = 0,0485$

в) $1 - \left(\frac{C_3^2}{C_{10}^2} \cdot \frac{C_2^2}{C_{11}^2} \right) = 0,9988$