

$$1) \quad p = \frac{1}{500}$$

GEOMETRIČNA PORAZDELITEV $p_N(m) = (1-p)^m p$

$$p_N(10) = \left(1 - \frac{1}{500}\right)^9 \frac{1}{500} = \underline{\underline{0.00196}} \quad (\text{PRVI, KI JE ODGOVORIL PRITRDLIVO JE 10.})$$

BINOMSKA PORAZDELITEV $p_Y(y) = \binom{n}{y} (1-p)^{n-y} p^y$

$$p_Y(0) = \binom{150}{0} \left(1 - \frac{1}{500}\right)^{150} \left(\frac{1}{500}\right)^0 = 0.74060$$

$$p_Y(1) = \binom{150}{1} \left(1 - \frac{1}{500}\right)^{149} \frac{1}{500} = 0.22262$$

$$p_Y(2) = \binom{150}{2} \left(1 - \frac{1}{500}\right)^{148} \left(\frac{1}{500}\right)^2 = 0.03324$$

$$p_Y(3) = \binom{150}{3} \left(1 - \frac{1}{500}\right)^{147} \left(\frac{1}{500}\right)^3 = 0.00329$$

$$p_Y(4) = \binom{150}{4} \left(1 - \frac{1}{500}\right)^{146} \left(\frac{1}{500}\right)^4 = 0.00024$$

$$P[\text{NIHČE PRITRDLIVO}] = p_Y(0) = \underline{\underline{0.7406}}$$

$$P[\text{PRITRDLIVO Š ALI VEČ}] = 1 - p_Y(0) - p_Y(1) - p_Y(2) - p_Y(3) - p_Y(4) \\ = \underline{\underline{0.000015}}$$