

$$a) f(p|y_1, y_2, y_3)$$

$$b) E(p) \text{ и } E(p|y_1, \dots, y_3) \leftarrow \text{ожидаемые значения}$$

$$c) P(p > 0.5) \text{ и } P(p > 0.5 | y_1, \dots, y_3)$$

вер-сь: карасей больше и у

$$E(p) = \int_0^1 p \cdot f(p) dp = \int_0^1 p \cdot 2p dp = \frac{2}{3}$$

ВЫСПЛЮСЬ

ПОТОМ

$$f(y_1, y_2, y_3 | p) = f(y_1 | p) \cdot f(y_2 | p) \cdot f(y_3 | p) = \frac{p \cdot (1-p) \cdot p_1 \cdot 2p_1}{p^2 \cdot (1-p)}, p \in [0, 1]$$

$$\int_0^1 f(p) dp = 1 \quad f(p|y) = \begin{cases} 20 \cdot p^3 \cdot (1-p), & p \in [0, 1] \\ 0, & p \notin [0, 1] \end{cases}$$

$$E(p|y) = \int_0^1 p f(p|y) dp = \frac{2}{3} \quad P(p > 0.5 | y) = \int_{0.5}^1 f(p|y) dp = \frac{13}{16} \approx 0.81$$