

Johdatus tekoälyyn, laskarit 4

T1.

(a)

$$P(\text{SPAM}) = 0,5$$

$$P(\text{SANA}_n = \text{Viagra} \mid \text{SPAM}) = 0,0021$$

$$P(\text{SANA}_n = \text{Viagra} \mid \neg \text{SPAM}) = 0,0001$$

$$\begin{aligned} P(\text{SPAM} \mid \text{SANA}_n = \text{Viagra}) &= \frac{P(\text{SANA}_n = \text{Viagra} \mid \text{SPAM})P(\text{SPAM})}{P(\text{SANA}_n = \text{Viagra} \mid \neg \text{SPAM})} \\ &= \frac{0,0021 \cdot 0,5}{0,0001} = 10,5 > 1 \end{aligned}$$