

prior:

$$P(C) = 0.01 = 1\% \quad P(\neg C) = 0.99$$

$$P(Pos|C) = 0.9 = 90\%$$

$$P(Neg|\neg C) = 0.9 \quad P(Pos|\neg C) = 0.1$$

posterior:

$$P(C|Pos) = P(C) \cdot P(Pos|C)$$

$$P(\neg C|Pos) = P(\neg C) \cdot P(Pos|\neg C)$$

0.009

0.099