

$$= \frac{\mathbf{Prob}[\text{SPAM}] \cdot \prod_{i=1}^n \mathbf{Prob}[w_i \mid \text{SPAM}]}{\prod_{i=1}^n (\mathbf{Prob}[w_i \mid \text{SPAM}] \cdot \mathbf{Prob}[\text{SPAM}] + \mathbf{Prob}[w_i \mid \neg \text{SPAM}] \cdot \mathbf{Prob}[\neg \text{SPAM}]}$$