

1/29/2025

$$P(Y = \text{span}) = 0.1$$

$$P(Y = \neg \text{span}) = 0.9$$

	<u>span</u>
apple	0.01
bene	0.02
candy	0.03

<u>$\neg \text{span}$</u>
0.03
0.02
0.01

$$\begin{aligned} P(C, B, B, A, C, \text{span}) &= P(\text{span}) P(C | \text{span}) P(B | \text{span}) \dots \\ &= (0.1) (0.03) (0.02) (0.02) (0.01) (0.03) \\ &= \frac{36}{10^{11}} \end{aligned}$$

$$\begin{aligned} P(C, B, B, A, C, \neg \text{span}) &= \\ &= (0.9) (0.01) (0.02) (0.02) (0.03) (0.01) \\ &= \frac{108}{10^{11}} \end{aligned}$$