

$$P(\text{Sunny} / \text{Yes}) = \frac{P(\text{Sunny} \cap \text{Yes})}{P(\text{Yes})} = \frac{3}{9} = \frac{1}{3}$$

$$P(\text{Yes} / \text{Sunny}) \neq P(\text{Yes})$$

$$P(\text{Sunny}) = \frac{5}{14}$$

$$P(\text{Yes}) = \frac{9}{14}$$

$$P(\text{Yes} / \text{Sunny}) = \frac{P(\text{Sunny} / \text{Yes}) \cdot P(\text{Yes})}{P(\text{Sunny})}$$

$$= \frac{\frac{1}{3} \cdot \frac{9}{14}}{\frac{5}{14}} = \frac{3}{5}$$