

Probability of Compound Events 3/14

Compound Events - 2 or more Simple Events

↳ To find Probability of Compound Events:

① find probability of each Simple Event

② Multiply the probabilities together.

Key Word: And

Ex) Rolling a die & flipping a coin

P(3 and heads)

$$\frac{1}{6} \cdot \frac{1}{2} = \frac{1}{12}, .08\bar{3}, 8\%$$

P(3 heads)

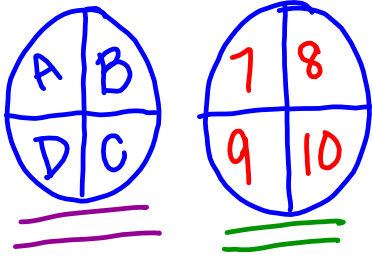
$$\frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{8}, 0.125, 12.5\%$$

P(even and tails)

$$\frac{3}{6} \cdot \frac{1}{2} = \frac{1}{4}, 0.25, 25\%$$

P(less than 6 & tails)

$$\frac{5}{6} \cdot \frac{1}{2} = \frac{5}{12}, 0.41\bar{6}, 42\%$$



$$P(\text{Vowel and Prime})$$

$$\frac{1}{4} \cdot \frac{1}{4} = \frac{1}{16} \quad 0.0625$$

$$6\%$$

$$P(\text{D and 5})$$

$$\frac{1}{4} \cdot \frac{0}{4} = 0, 0\%$$

Impossible

$$P(\text{Consonant and Even})$$

$$\frac{3}{4} \cdot \frac{2}{4} = \frac{3}{8}, 0.375$$

$$37.5\%$$