

Finding Probability Using Fractions

- * To calculate total # of outcomes of independent events multiply all possible outcomes (separately) together.

Ex. Restaurant (Food van)

3 drinks

coke
sprite
iced tea

4 Main

HD
Heme
g. ch
chicken
nug

2 sides

fries
onion rings

Total # of combos of meals?

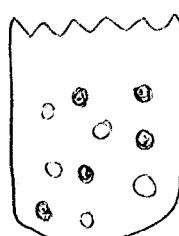
$$3 \times 4 \times 2 = 24 \text{ diff combos!}$$

- * Probability of Independent events can be calculated by multiplying their ind. prob. together

$$P(A \text{ then } B) = P(A) \times P(B)$$

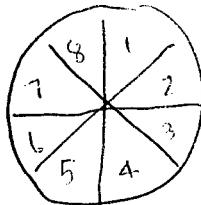
* as long as A and B don't affect each other.

Ex. Find $P(\text{wh}, 7)$ from marbles and spinner



$$P(\text{wh}) = \frac{5}{10} = \frac{1}{2}$$

$$P(\text{wh}, 7) = \frac{1}{2} \times \frac{1}{8}$$



$$P(7) = \frac{1}{8}$$

$$= \frac{1}{16} = 0.0625 \\ = 6.25\%$$