

Sample Size:

300 Happy Meals

Probability the next child will choose Barbie:

$P(\text{Barbie}) = 141/300$ (47%)

Probability the next child will choose Nuggets or Barbie:

$P(\text{N or B}) = 255/300$ (85%)

Probability the next child will choose Nuggets and Hot Wheels:

$P(\text{N and HW}) = 114/300$ (38%)

Probability the next child will choose Hamburger:

$P(\text{H}) = 120/300$ (40%)

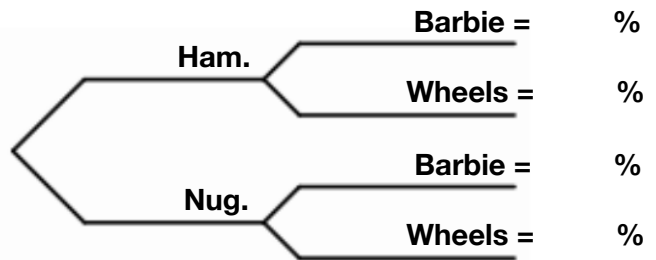
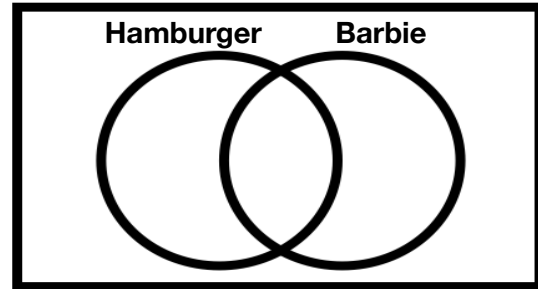
Probability the next child will choose Hamburger, given that we already know the child is choosing Barbie:

$P(\text{H} | \text{B}) = 75/141$ (53.2%)

Hamburgers and Barbies are:

independent (have no effect on each other) **dependent** (have some effect on each other)

	Hamburger	Nuggets	Total
Barbie			
Hot Wheels			
Total			



Sample Size:

_____ coins on the ground

Probability the next coin you find will be heads:

$P(\text{Heads}) = \frac{\quad}{\quad}$ (____%)

Probability the next coin you find will be a penny and tails:

$P(\text{P and T}) = \frac{\quad}{\quad}$ (____%)

Probability the next coin you find will be a penny or tails:

$P(\text{P or T}) = \frac{\quad}{\quad}$ (____%)

Probability the next coin you find will be a penny:

$P(\text{P}) = \frac{\quad}{\quad}$ (____%)

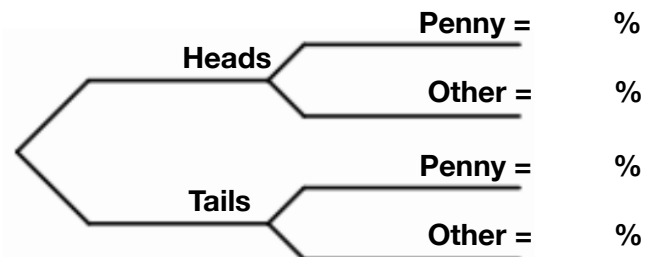
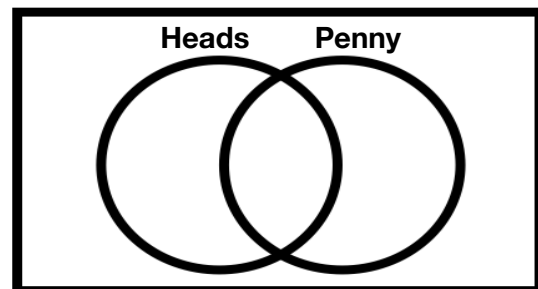
Probability the next coin you find will be a penny, given that we already know the coin is heads:

$P(\text{P} | \text{H}) = \frac{\quad}{\quad}$ (____%)

Pennies and Heads are:

independent (have no effect on each other) **dependent** (have some effect on each other)

	Heads	Tails	Total
Penny	36	36	72
Other Coin	24	24	48
Total	60	60	120



Sample Size:
_____ **days**

Probability a random day will have rain:
P(Rain) = ____ / ____ (____%)

Probability a random day will have good air and rain:
P(GA and R) = ____ / ____ (____%)

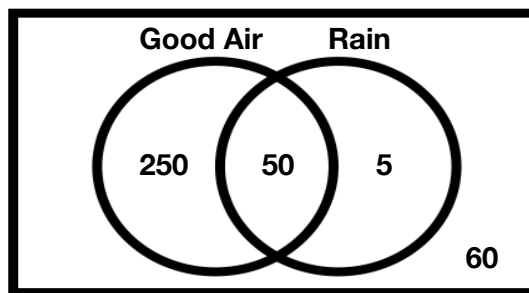
Probability a random day will have good air or rain:
P(GA or R) = ____ / ____ (____%)

Probability a random day will have good air:
P(GA) = ____ / ____ (____%)

Probability a random day will have good air, given that we already know that it rained that day:
P(GA | R) = ____ / ____ (____%)

Good Air and Rain are:
independent **dependent**
(have no effect on each other) (have some effect on each other)

	Good Air	Bad Air	Total
Rain			
No Rain			
Total			



Sample Size:
_____ **Skittles®**

Probability the next Skittle you grab will be red:
P(Red) = ____ / ____ (____%)

Probability the next Skittle will be red and safe:
P(R and S) = ____ / ____ (____%)

Probability the next Skittle you grab will be red or poisonous:
P(R or P) = ____ / ____ (____%)

Probability the next Skittle you grab will be poisonous:
P(P) = ____ / ____ (____%)

Probability the next Skittle you grab will be poisonous, given that we already know it is red:
P(P | R) = ____ / ____ (____%)

Poisonous and Red are:
independent **dependent**
(have no effect on each other) (have some effect on each other)

	Red	Not Red	Total
Poisonous			
Safe			
Total			

