

02 Activity 4

1. Miriam randomly chooses 2 items for the child she is babysitting from a toy bin that contains 12 toys, 8 stuffed animals, and 3 board games. What is the probability that she chose 2 stuffed animals as the first two choices?

$$P(\text{choosing 2 stuffed animals}) = (8/23) \times (7/22) = 0.1074 \text{ or } 10.74\%$$

2. Arman and Gaylee went to a pet store to buy dog food for their dog Loki. They chose from 10 brands of dry food, 6 brands of canned food, and 3 brands of pet snacks. What is the probability that they both chose dry food, if Arman randomly chose first and liked the first brand he picked up?

$$P(\text{both chose dry food}) = (10/19) \times (9/18) = 0.2632 \text{ or } 26.32\%$$

3. Joshua's mother has 10 orange juice boxes, 7 grape juice boxes, and 3 lemonade juice boxes in the cooler for Joshua and his friends. Joshua randomly takes a juice box from the cooler, then randomly chooses another juice box without replacing the first. Find the probability that both juice boxes are lemonade.

$$P(\text{both juice boxes are lemonade}) = (3/20) \times (2/19) = 0.0079 \text{ or } 0.79\%.$$

4. You have a bag of 15 scrabble tiles. 3 of the tiles are O and 2 of the tiles are U. What is the probability of getting O and then U?

$$P(\text{getting O and then U}) = (3/15) \times (2/14) = 0.0086 \text{ or } 0.86\%$$