



4. A jar contains 3 red, 4 green, and 5 blue marbles.
- If 3 marbles are selected one at a time and replaced, find the probability of selecting one of each color.
  - If 2 marbles are selected one at a time<sup>a</sup> and not replaced, find the probability that they are the same color.
  - If marbles are selected 3 at a time, find the probability that at least 2 are green.
5. If 7 out of 11 persons surveyed said they have internet access, what is the probability that out of the next 4 persons asked, at least one of them will not have internet access?
6. A family of 4 is choosing 1 of 8 possible vacations. What is the probability that each family member chooses a different vacation?
7. Suppose that in Placentia, 95% of high school students graduated. A follow-up study showed that at age 25, 81% of the high school graduates held full-time jobs while only 63% of those who did not graduate held full-time jobs. What is the probability that a randomly selected student will not have a full-time job at age 25?
8. In a bag of 48 red and green marbles, some are opaque and some are translucent. If  $\frac{1}{3}$  are red,  $\frac{5}{12}$  are translucent, and  $\frac{1}{2}$  are red or translucent, how many are red and translucent?
9. There are 25 cars in a parking lot. Eight are red and 13 have 4 doors. Six are both red and have 4 doors. Find the probability that a randomly chosen car:
- will be red or have 4 doors
  - is not red