

**Probabilities of More than One Event**

*A machine is loaded with ping-pong balls numbered from 1 to 36. One of these balls is chosen at random. Answer the following.*

- [1] What is the probability that a ball naming a multiple of 4 is chosen?
- [2] What is the probability that a ball naming a multiple of 5 is chosen?
- [3] List all those balls naming a multiple of 4 or a multiple of 5. What is the probability that one of these balls is chosen?
- [4] What is the probability that a ball containing the digit 2 is chosen?
- [5] What is the probability that a ball containing the digit 3 is chosen?
- [6] What is the probability that a ball containing the digit 2 or the digit 3 is chosen?

*One card is chosen from a standard deck of fifty-two playing cards. Answer the following.*

- [7] What is the probability that this card will be a king (K)?
- [8] What is the probability that this card will be a diamond (♦)?
- [9] What is the probability that this card will be a king (K) OR a diamond (♦)?

*Answer the following – drawing a diagram may help you to solve this problem.*

- [10] A Pittsburgh advertising firm reports that thirty-five percent of those surveyed in the city had heard a certain advertisement on radio, while only twenty-five percent saw it on television. Sixteen percent of those surveyed saw and heard the advertisement on both. What percent chance do you think there is that a person chosen at random has not seen or heard this advertisement?