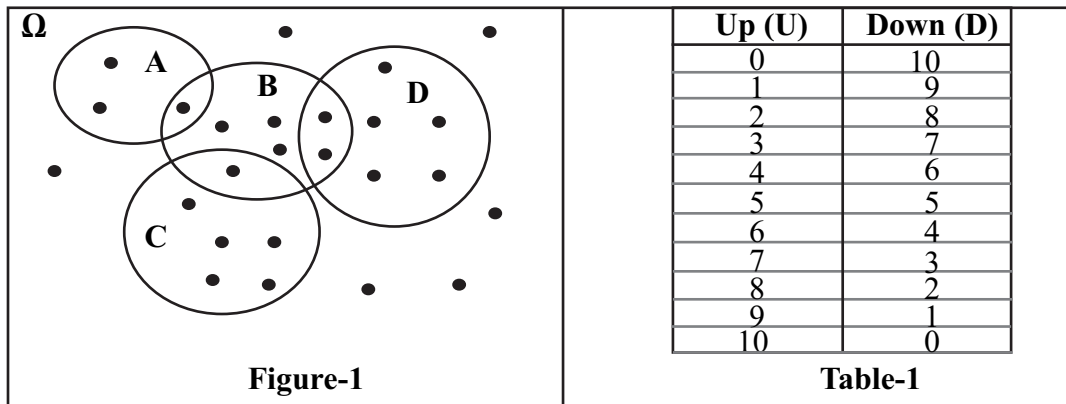


Functions Worksheet 6



In the Venn diagram above (Figure 1), each dot represents a possible outcome. Use the diagram to answer questions 1-5.

1. What is $P(A|B)$?
2. What is $P(B|A)$?
3. What is $P(C|A)$?
4. What is $P(D|B)$?
5. What is $P((A \text{ or } B)|D)$?

You drop a piece of butter toast 10 times. It will either land butter up (U) or butter down (D). The list of possible outcome is provided in Table 1.

6. Once the toast lands butter up 9 times, what is the probability it will land but-

ter up 10 times?

7. The toast hasn't been dropped yet. What is the probability it will land butter down exactly the time?
8. The toast landed butter down two times and butter up two times. What is the probability it will land butter up exactly 8 times?
9. You've dropped the toast twice, and it landed butter down both times. What is the probability it will land butter down exactly 10 times?
10. The toast has landed butter up twice and butter down three times. What is the probability it will land butter up at least 4 times?

