

Assignment 10. Sample Spaces and Probability

Work individually. Put your answer on a Word document.

Sample Spaces

A sample space is the set of all possible outcomes.

1. Find the sample space for the gender of the children if a family has three children. Use B for boy and G for girl.
2. Find the sample space for rolling two dice.
3. Find the sample space for drawing one card from an ordinary deck of cards.

Classical Probability

4. If a family has three children, find the probability that
 - two of the three children are girls.
 - At least one boy
 - At most two boy
 - All the children have the same sex
5. **Drawing a card.** A card is drawn from an ordinary deck. Find these probabilities.
 - Getting a black 10
 - Getting the 6 of clubs
 - Getting a 3 or a diamond
 - Getting a 3 or a 6
6. **Rolling a Die.** If a die is rolled one time, find these probabilities
 - Getting a 2
 - Getting a number greater than 6
 - Getting an odd number
 - Getting a 4 or an odd number
 - Getting a number less than 7
 - Getting a number greater than or equal to 3
 - Getting a number greater than 2 and an even number
7. **Rolling Two Dice.** If two dice are rolled one time, find the probability of getting these results.
 - A sum of 9
 - Doubles
 - A sum greater than or equal to 10
 - A sum less than 10