

## **Sample Space – Tree Diagrams**

**A systematic approach to finding all the outcomes**

**Make a tree diagram for tossing a quarter and a dime.**

**Draw a tree diagram to show all the possible outcomes of tossing a coin, then throwing a five-sided die.**

**A fair coin is tossed, if it comes up heads, H, a fair die is rolled and the experiment is over. If it comes up tails, T, the coin is tossed once more. Describe the outcomes.**

- 1. Draw a tree diagram and find the probability of having 2 boys in a family of 3 children?**
- 2. On a three question true-false test, draw a tree diagram and find the probability of getting 100% if all the answers were chosen at random.**
- 3. A sports car can be ordered in 5 colors and two types of transmissions, manual and automatic, draw a tree diagram to show how many types of cars can be ordered.**
- 4. Three coins are tossed, what are the possible outcomes?**
- 5. In a committee of 5 people; A, B, C, D, E, draw a tree diagram showing the possible outcomes.**