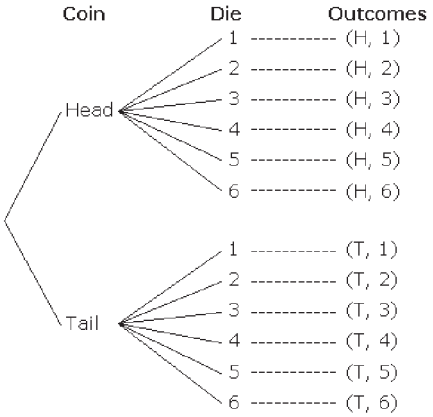
Finding Sample Space

The **sample space** of a random trial is the set of all possible outcomes.

The following shows the sample space of flipping a coin and rolling a six-sided die. Notice there are a total number of 12 outcomes.



$$\text{Sample Space} = \begin{Bmatrix} \text{Head 1, Head 2, Head 3,} \\ \text{Head 4, Head 5, Head 6,} \\ \text{Tail 1, Tail 2, Tail 3,} \\ \text{Tail 4, Tail 5, Tail 6,} \end{Bmatrix}$$

Try These

State the sample space for the following.

1. Rolling a six-sided cube

2. Flipping a coin twice

3. The sum of rolling two six-sided cubes

4. Choosing a marble from a jar containing 4 red, 6 yellow and 5 blue marbles.

5. Choosing a letter from the word Mississippi

6. Spinning a wheel numbered 1 through 5

7. Choosing a prime number between 2 and 20

8. Choosing a King from a standard deck of 52 cards.