

Examples with sample spaces that have equally likely outcomes.

1. Suppose that $S = \{\bullet, \square, \star\}$. Reasonable to assume that each of the outcomes is equally likely to appear, if the child chooses the shape blindly, say, from a bag. In that case, $P(\{\bullet\}) = 1/3$ and $P(\{\square\}) = 1/3$ and $P(\{\star\}) = 1/3$. Similarly, if $A = \{\bullet, \star\}$, then $P(A) = 2/3$.

2. Draw a card from a deck of 52 cards total. It is reasonable to assume that all 52 cards are equally likely to appear. So, for instance, $P(2C) = 1/52$.

3. Draw a cookie from a jar that contains 30 cookies altogether. Make the choice blindly. If 17 of the cookies are chocolate, then the probability of selecting a chocolate is $17/30$.

4. Roll two dice. Say one die is red and one die is green. The probability that the green die shows 3 and the red die shows 1 is exactly $1/36$. The probability that a 1 and a 3 appear (without regard to color) is $2/36$. The probability that two occurrences of 5 appears simultaneously on the two die is $1/36$.