Sample Space Practice

1. A normal six-sided die is rolled.

S =

Find the probability of getting:

a) 6

b) not 3

c) 3 or 6

d) An even number

e) An odd number

f) A number greater than 3

g) 7

2. A bag contains 1 red, 1 blue, 3 green, 1 yellow, and 2 white marble.

S =

One marble is chosen at random from the bag.
What is the probability the marble is:

a) Red

b) Not Green

c) Red or green

d) Blue or white

e) Yellow or white

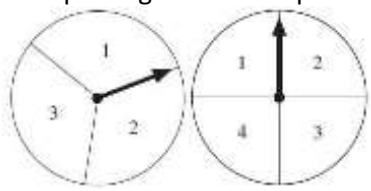
3. Find the number of possible outcomes:
A sandwich shop has three types of sandwiches: ham, turkey, and chicken. Each sandwich can be ordered with white bread, multi-grain bread, or rye bread.

4. Find the number of possible outcomes:
A new car is available in a sedan model and a hatchback model. It is available in red, white, green, and black.

5. Find the number of possible outcomes:
A jewelry store sells gold and platinum rings. Each ring is fitted with a ruby, sapphire, or emerald gemstone.

6. Find the number of possible outcomes:
The band must decide when to meet for a practice. The possible days are Tuesday through Friday. The possible times are 3, 4, or 5 p.m.

7. Spinning these two spinners:

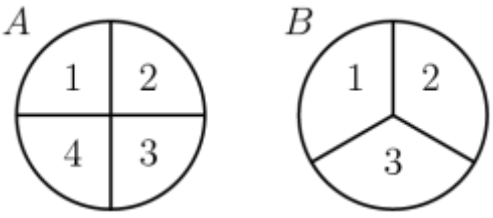


What is the total number of outcomes?

8. Flipping the coin and rolling a six-sided die:

What is the total number of outcomes?

9. A game consists of two spinners A and B. Both spinners are spun, and the total score is determined by adding the two scores together.



To determine the sample space, complete the table below.

Spinner A

Spinner B	1	2	3	4
1				
2				
3				

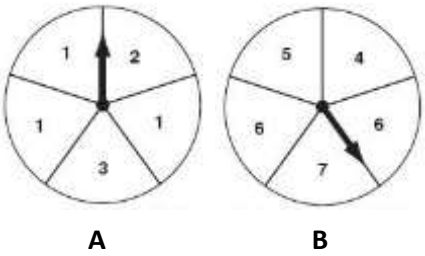
a) What is the total number of outcomes?

b) What is the probability of obtaining a score of 6?

c) What is the probability of obtaining a score less than 4?

d) What is the probability of obtaining an even number?

10. A game consists of two spinners A and B. Both spinners are spun, and the total score is determined by multiplying the two scores.



A **B**

Create a table for the sample space.

a) What is the probability of obtaining a score of 6?

b) What is the probability of obtaining a score less than 4?

c) What is the probability of obtaining an even number?

11. Two coins are flipped to decide who has to do the chores. If two heads are flipped, Matt has to do the chores. If two tails are flipped, Mark has to do the chores. If neither of these results is met, they flip both coins again.

a) How many different outcomes are there after flipping both coins?

b) What is the probability that Matt has to do the chores?

c) What is the probability that Mark has to do the chores?

d) Is the method of decision fair? Why?

e) What is the likelihood that they must flip again?

12. A six-sided die is rolled and then a coin is flipped during the process of a game. Jacob wins the game if a tail is flipped and an even number is rolled. Amanda wins the game if a head is flipped on the coin.

a) How many different outcomes are there?

b) What is the probability that Jacob wins?

c) What is the probability that Amanda wins?

d) Is the game fair? Why?

e) Are there any outcomes where the game is not decided?