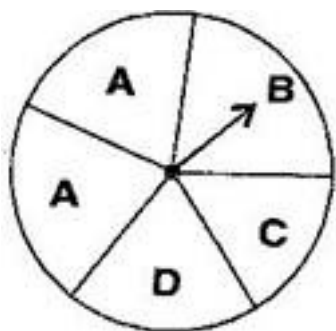


**CBSE Class –VIII Mathematics**  
**NCERT Solutions**  
**CHAPTER - 5**  
**Data Handling (Ex. 5.3)**

**1. List the outcomes you can see in these experiments.**

**(a) Spinning a wheel**



**(b) Tossing two coins together**

**Ans. (a)** There are four letters A, B, C and D in a spinning wheel. So there are 4 outcomes.

**(b)** When two coins are tossed together. There are four possible outcomes HH, HT, TH, TT.

(Here HT means head on first coin and tail on second coin and so on.)

**2. When a die is thrown, list the outcomes of an event of getting:**

**(i) (a) a prime number**

**(b) not a prime number**

**(ii) (a) a number greater than 5**

**(b) a number not greater than 5**

**Ans. (i)** (a) Outcomes of event of getting a prime number are 2, 3 and 5.

(b) Outcomes of event of not getting a prime number are 1, 4 and 6.

(ii) (a) Outcomes of event of getting a number greater than 5 is 6.

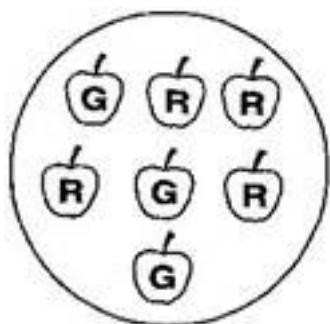
(b) Outcomes of event of not getting a number greater than 5 are 1, 2, 3, 4 and 5.

**3. Find the:**

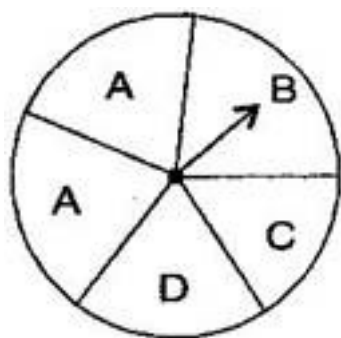
(a) Probability of the pointer stopping on D in (Question 1 (a)).

(b) Probability of getting an ace from a well shuffled deck of 52 playing cards.

(c) Probability of getting a red apple. (See figure below)



**Ans. (a)** In a spinning wheel, there are five pointers A, A, B, C, D. So there are five outcomes. Pointer stops at D which is one outcome.



So the probability of the pointer stopping on D =  $\frac{1}{5}$

(b) There are 4 aces in a deck of 52 playing cards. So, there are four events of getting an ace.

So, probability of getting an ace =  $\frac{4}{52} = \frac{1}{13}$

(c) Total number of apples = 7

Number of red apples = 4

Probability of getting red apple =  $\frac{4}{7}$

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**4. Numbers 1 to 10 are written on ten separate slips (one number on one slip), kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of:**

**(i) getting a number 6.**

**(ii) getting a number less than 6.**

**(iii) getting a number greater than 6.**

**(iv) getting a 1-digit number.**

**Ans. (i)** Outcome of getting a number 6 from ten separate slips is one.

Therefore, probability of getting a number 6 =  $\frac{1}{10}$

**(ii)** Numbers less than 6 are 1, 2, 3, 4 and 5 which are five. So there are 5 outcomes.

Therefore, probability of getting a number less than 6 =  $\frac{5}{10} = \frac{1}{2}$

**(iii)** Number greater than 6 out of ten that are 7, 8, 9, 10. So there are 4 possible outcomes.

Therefore, probability of getting a number greater than 6 =  $\frac{4}{10} = \frac{2}{5}$

**(iv)** One digit numbers are 1, 2, 3, 4, 5, 6, 7, 8, 9 out of ten.

Therefore, probability of getting a 1-digit number =  $\frac{9}{10}$

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**5. If you have a spinning wheel with 3 green sectors, 1 blue sector and 1 red sector, what is the probability of getting a green sector? What is the probability of getting a non-blue sector?**

**Ans.** There are five sectors. Three sectors are green out of five sectors.

Therefore, probability of getting a green sector =  $\frac{3}{5}$

There is one blue sector out of five sectors.

Non-blue sectors =  $5 - 1 = 4$  sectors

Therefore, probability of getting a non-blue sector =  $\frac{4}{5}$

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**6. Find the probability of the events given in Question 2.**

**Ans.** When a die is thrown, there are total six outcomes, i.e., 1, 2, 3, 4, 5 and 6.

**(i) (a)** 2, 3, 5 are prime numbers. So there are 3 outcomes out of 6.

Therefore, probability of getting a prime number =  $\frac{3}{6} = \frac{1}{2}$

**(b)** 1, 4, 6 are not the prime numbers. So there are 3 outcomes out of 6.

Therefore, probability of getting a prime number =  $\frac{3}{6} = \frac{1}{2}$

**(ii) (a)** Only 6 is greater than 5. So there is one outcome out of 6.

Therefore, probability of getting a number greater than 5 =  $\frac{1}{6}$

**(b)** Numbers not greater than 5 are 1, 2, 3, 4 and 5. So there are 5 outcomes out of 6.

Therefore, probability of not getting a number greater than 5 =  $\frac{5}{6}$

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