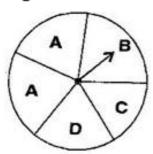


NCERT solutions for class 8 maths chapter 5 Data Handling Ex-5.3

- **Q1.** List the outcomes you can see in these experiments.
- (a) Spinning a wheel (b) Tossing two coins together



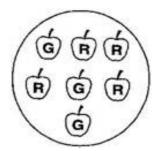
- **Ans.** (a) There are four letters A, B, C and D in a spinning wheel. So there are 4 outcomes.
- **(b)** When two coins are tossed together. There are four possible outcomes HH, HT, TH, TT.

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

- **Q2.** 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.

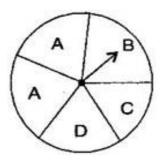
(b) Outcomes of event of not getting a number greater than 5 are 1, 2, 3, 4 and 5.

Q3. 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 alongside)
- **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 =

(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 =
$$\frac{4}{42} = \frac{1}{4}$$

(c) Total number of apples = 7

Number of red apples = 4

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

- Q4. 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

$$number = \frac{9}{10}$$

Q5. 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 none-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

$$sector = \frac{4}{5}$$

Q6. 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
$$5 = \frac{5}{6}$$

****** END *******