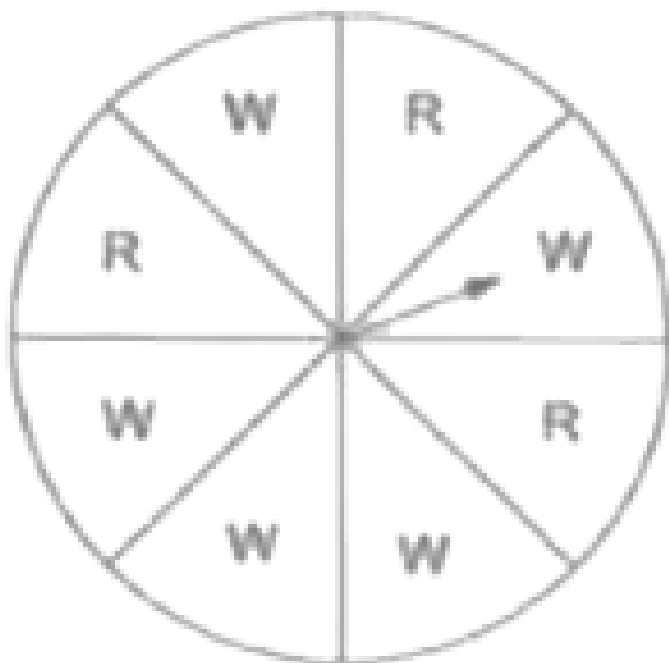# MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

PROBABILITY

Solved Examples

1. A spinning wheel divided into eight sectors.

Three of these sectors are painted red and the

remaining five are painted white, as shown. The wheel is spinned. What Is the probability of getting (i) a wheel sector? (ii) a red sector?

2. A coin is tossed once. What is the probability of getting a head ?

A. $\dfrac{1}{4}$

B. $\dfrac{3}{4}$

C. $\dfrac{1}{2}$

D. $\dfrac{1}{5}$

Answer: C

3. When 2 coins are tossed simultaneously, what are all possible outcomes? In a single throw of 2 coins, what is the probability of getting (i) both heads? (ii) at least 1 head?

4. There are 35 stdents in a class, of whom 20 are boys and 15 are girls. From these students, one is chosen at random. What is the probability than the chosen student is a (i) boy? (ii) girl?

5. A bag contains 6 red and 8 green balls. They are mixed throughly and one ball is drawn at random. Find the probabiity of getting (i) a red ball, (ii) a green ball.

6. A die is thrown. What is the probability of getting (i) a prime number?

(ii) a number greater than 4? (ii) a number not greater than 5?

7. Ten cards are numbered as 1,2,3,4,5...........10 respectively. They are kept in a box and mixed throughly. One card is chosen at random from the box. What is the probability of (i) getting the number 8? (ii) getting a number less than 5? (iii) getting a number greater than 4? (iv) getting a 1-digit number?

8. From a well shuffled deck of 52 cards, one card is drawn at random. What is the probability that the card drawn is (i) a diamond? (ii) an ace? (iii) 5 of club?

9. From a well shuffled deck of 52 cards, one card is drawn at random. Find the probability

of gettting (i) a red card (ii) a 10 of black cards,

(iii) a face card.

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1. When a dice is rolled, what are all the possible outcomes?

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2. When 2 coins are tossed simultaneously, write all possible outcomes.

3. A die is thrown. What are the possible outcomes?

4. From a well shuffled deck of 52 cards, one card is drawn at random. What is the number of all possible outcomes?

A. 26

B. 4

C. 13

D. 52

Answer: D

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5. In a single throw of a coin, what is the probabililty of getting a tail?

6. In a single throw of two coins, find the probability of getting (i) both tails, (ii) at least 1 tail, (iii) at the most 1 tail.

7. A bag contains 4 white and 5 blue balls. They are mixed throughly and one ball is drawn at random. What is the probability of getting (i) a white ball? (ii) a blue ball?

8. A bag contains 5 white, 6 red and 4 green balls. One ball is drawn at random. What is the probability that the ball drawn is (i) green? (ii) white? (iii) non -red?

9. In a lottery, there are 10 prizes and 20 blanks. A ticket is chosen at random. What is the probability of getting a prize?

A. $\dfrac{1}{3}$

B. $\dfrac{2}{3}$

C. $\dfrac{1}{4}$

D. $\dfrac{1}{5}$

Answer: A

10. It is known that a box of 100 electric bulbs contains 8 defective bulbs. One bulb is taken out at random from the box. What is the probability that the bulb drawn is (i) defective? (ii) non -defective?

11. A die is thrown at random. Find th probability of getting (i) 2 (ii) a number, less

than 3, (iii) a composite number, (iv) a number not less than 4.

12. In a survey of 200 ladies. It was found that 82 like coffee while 118 dislike it. From thee ladies, one is chosen at random. What is the probability that the chosen lady dislikes coffee?

13. A box contains 19 balls bearing number 1,2,3,.......19 respectively. A ball is drawn at random from the box. Find the probability that the number on the ball is (i) a prime number, (ii) an even number (iii) a number divisible by 3.

14. One card is drawn at random from a well shuffled deck of 52 cards. Find the probability

that the card drawn is (i) a king (ii) a spade, (iii) a red queen (iv) a black 8.

15. One card is drawn at random from a well shuffled deck of 52 cards. Find the probability that the card drawn is (i) a 4, (ii) a queen, (iii) a black card.

1. In a spinning wheel, there are 3 white and 5 green sectors. It is spinned. What is the probabilit of getting a green sector?

A. $\dfrac{5}{3}$

B. $\dfrac{5}{8}$

C. $\dfrac{1}{5}$

D. $\dfrac{3}{8}$

Answer: B

2. 8 cards are numbered as 1,2,3,4,5,6,7,8 respectively. They are kept in a box and mixed thoroughly. One card is chosen at random. What is the probability of getting a number less than 4?

A. $\dfrac{1}{2}$

B. $\dfrac{3}{4}$

C. $\dfrac{3}{8}$

D. $\dfrac{3}{5}$

Answer: C

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3. Two coins are tossed simultaneously. What is the probability of getting one head and one tail?

A. $\dfrac{1}{4}$

B. $\dfrac{1}{2}$

C. $\dfrac{3}{4}$

D. $\dfrac{2}{3}$

Answer: B

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4. A bag contains 3 white and 2 red balls. One ball is drawn at random. What is the probability that the ball drawn is red?

A. $\dfrac{1}{2}$

B. $\dfrac{2}{3}$

C. $\dfrac{1}{5}$

D. $\dfrac{2}{5}$

Answer: D

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5. A die is thrown . What is the probability of getting 6?

A. 1

B. $\dfrac{1}{6}$

C. $\dfrac{6}{1}$

D. None of these

Answer: B

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6. A die is thrown. What is the probability of getting an even number?

A. $\dfrac{1}{2}$

B. $\dfrac{2}{3}$

C. $\dfrac{5}{6}$

D. $\dfrac{1}{6}$

Answer: A

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7. From a well shuffled deck of 52 cards, one card is drawn at random. What is the probabililty that the drawn card is a queen?

A. $\dfrac{1}{4}$

B. $\dfrac{1}{52}$

C. $\dfrac{1}{13}$

D. $\dfrac{1}{26}$

Answer: C

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8. From a well shuffled deck of 52 cards, one card is drawn at random. What is the probabililty that the drawn card is a black 6?

A. $\dfrac{3}{26}$

B. $\dfrac{1}{26}$

C. $\dfrac{1}{13}$

D. $\dfrac{1}{52}$

Answer: B

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