PERL EDUCATION



PROBABILITY

## **MATHEMATICS**

CLASS 8<sup>TH</sup>

- 1. From a well shuffled pack of 52 cards, find the probability that a card drawn at random is Red.
- 2. From a well shuffled pack of 52 cards, find the probability that a card drawn at random is an Ace.
- 3. A tetrahedron is numbered using numbers 1, 2, 3 and 4. If the tetrahedron is rolled, find the probability that it rests on
  - a) Number 1
  - b) An even number
  - c) A number greater than 4
  - d) A number less than 4
  - e) A positive number
  - 4. State the probability of the events, in Question 3, to happen using the words No chance, poor chance, even chance, good chance, sure chance
  - 5. A spinner, as shown in the adjoining diagram is rotated. Find the probability of spinner landing on red.



- 6. Find the probability of getting a number less than 3 when a die, numbered 1 to 6, is thrown.
- 7. There are 50 students in a class out of which 20 are girls. If a class representative (CR) is appointed, find the probability that the CR is a girl. What is the probability of the CR to be a boy?
- 8. A fruit is chosen at random from 5 oranges, 4 apples and 3 mangoes. Find the probability that a mango is chosen.
- 9. One letter is selected from the word "PROBABILITY". Find the probability that the letter selected is a vowel.
- 10. A die Is labeled using the letters of the word "INDIAN". If this die is rolled find the probability of getting the following letters on its upper face.

a) I b) N c) A d) P

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## **MATHEMATICS**

CLASS 8<sup>TH</sup>

- 1. Two dice are thrown; draw the tree diagram of the sample space and hence find the probability that both the numbers are odd.
- 2. Three coins are tossed; draw the tree diagram of the sample space find the probability of getting all tails.
- 3. A spinner, as shown In the adjoining diagram is rotated 3 times. Find the probability of spinner landing on red at least twice.



- 4. A die and a coin are tossed simultaneously, draw the tree diagram of the sample space and find the probability of getting a head and an even number.
- 5. Three envelopes, brown, white arid pink in colour, each contain 5 letters. The letters in each envelope are of the same colour as the envelop and labeled using the numbers 1 to 5. One letter is drawn at random from an envelope. Draw the tree diagram and hence find the probability that the letter is pink with label 4
- 6. Take a coin and toss it 30 times. Tabulate the results and answer the following questions.
  - a) What is the experimental probability of getting a head?
  - b) What is the experimental probability of getting a tail?
  - c) What is the theoretical probability of getting a head?
  - d) What is the theoretical probability of getting a tail?
- 7. Spin the spinner shown in the adjoining diagram 60 times. Tabulate the results and answer the following questions
  - a) What is the experimental probability of getting a 1?
  - b) What is the experimental probability of getting an even number?
  - c) What is the theoretical probability of getting a 1?
  - d) What is the theoretical probability of getting an even number?
- 8. Two dice are thrown, find the probability of getting
  - a) the sum of the two numbers on the dice is 2
  - b) the sum of the two numbers on the dice is 10
  - c) the sum of the two numbers on the dice is 12
  - d) the sum of the two numbers on the dice is 14

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# MATHEMATICS

CLASS 8<sup>TH</sup>

1. The following table shows the results of rolling a tetrahedron numbered 1 to 4, 60 times.

1	2	2	3	2	1	3	3	3	4	1	1
4	3	1	3	4	3	2	1	3	2	3	4
3	4	4	2	2	3	3	3	4	1	3	2
4	2	3	1	3	3	3	4	3	2	2	2
4	2	1	1	4	2	4	2	1	1	3	4

2. Use the data to complete the following table.

Result	Tally Marks	Frequency	Experimental	Theoretical	Is $E = T$ ?
	1/ /		Probability(E)	Probability(T)	(Yes/No)
1					0.7
2					
3					
4			~		

3. Match the following.

	0		
-	Event	4	Probability
a.	Sure chance	I.	Less than $\frac{1}{2}$
b.	Even chance	II.	1
с.	No chance	III.	0
d.	Likely chance	IV.	$\frac{1}{2}$
e.	Unlikely chance	V.	More than $\frac{1}{2}$

- 4. From a well shuffled pack of 52 cards, find the probability that a card drawn at random is of
  - a) Spades
  - b) Clubs
  - c) Diamonds
  - d) Hearts
- 5. A bag contains three pairs of shoes of blue, white and black colours. If a shoe is drawn out of the bag, what is the probability that the shoe is black?
- 6. A coin and a dice, labeled with letters A. B, C. D, E and F are tossed simultaneously. Write the sample space with the help of a tree diagram. Hence, find the probability of gutting a head and a vowel.
- 7. A the is tossed twice; find the probability of getting the same numbers in both tosses.

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