

Probability class-9 Maths (Solved exercise)

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Question 10.

Activity : Ask all the students in your class to write a 3-digit number. Choose any student from the room at random. What is the probability that the number written by her/him is divisible by 3? Remember that a number is divisible by 3, if the sum of its digit is divisible by 3.

Solution:

A class room activity for students.

Question 11.

Eleven bags of wheat flour, each marked 5 kg, actually contained the following weights of flour (in kg)

4.97, 5.05, 5.08, 5.03, 5.00, 5.06, 5.08, 4.98, 5.04, 5.07, 5.00

Find the probability that any of these bags, chosen at random contains more than 5 kg of flour.

Solution:

Here, total number of bags = 11

\therefore Number of bags having more than 5 kg of flour = 7

\therefore Probability of a bag having more than 5 kg of flour = $\frac{7}{11}$

Question 12.

A study was conducted to find out the concentration of sulphur dioxide in the air in parts per million (ppm) of a certain city. The data obtained for 30 days is as follows.

0.03	0.08	0.08	0.09	0.04	0.17
0.16	0.05	0.02	0.06	0.18	0.20
0.11	0.08	0.12	0.13	0.22	0.07
0.08	0.01	0.10	0.06	0.09	0.18
0.11	0.07	0.05	0.07	0.01	0.04

You were asked to prepare a frequency distribution table, regarding the concentration of sulphur dioxide in the air in parts per million of a certain city for 30 days. Using this table, find the probability of the concentration of sulphur dioxide in the interval 0.12-0.16 on any of these days.

Solution:

Here, total number of days = 30

\therefore The number of days on which the sulphur dioxide concentration is in the interval 0.12 – 0.16 = 2

\therefore Probability of a day on which sulphur dioxide is in the interval 0.12 – 0.16 = $2/30 = 1/15$

Question 13.

The blood groups of 30 students of class VIII are recorded as follows

A, B, O, O, AB, O, A, O, B, A, O, B, A, O, O, A, AB, O, A, A, O, O, AB, B, A, B, O

You were asked to prepare a frequency distribution table regarding the blood groups of 30 students of a class. Use this table to determine the probability that a student of this class, selected at random, has blood group AB.

Solution:

Here, total number of students = 30

\therefore Number of students having blood group AB = 3

\therefore Probability of a student whose blood group is AB = $3/30 = 1/10$.