

# Probability and random variables assignment

Maharshi Kadeval

1 EX 14.2 Q7

**Abstract**—This section provides the solution to problem 7 of exercise 14.2 of CBSE class 9th NCERT textbook of mathematics.

1.1. The value of  $\pi$  upto 50 decimal places is given below:

3.1415926535897932384626433832795028841  
9716939937510

(i) Make a frequency distribution of the digits from 0 to 9 after the decimal point.

(ii) What are the most and the least frequently occurring digits?

**Solution:**

we are given a raw data of digits after the decimal in  $\pi$ :

1,4,1,5,9,2,6,5,3,5,8,9,7,9,3,2,3,8,4,6,2,6,4,3,3,8,  
3,2,7,9,5,0,2,8,8,4,1,9,7,1,6,9,3,9,9,3,7,5,1,0

(i) **frequency table :**

TABLE 1.1.1

| Digits | Frequency |
|--------|-----------|
| 0      | 2         |
| 1      | 5         |
| 2      | 5         |
| 3      | 8         |
| 4      | 4         |
| 5      | 5         |
| 6      | 4         |
| 7      | 4         |
| 8      | 5         |
| 9      | 8         |
| Total  | 50        |

(ii) **From 1.1.1** we can easily see that the digit(s) with maximum frequency are 3 and 9 whereas the digit with the least frequency is 0.