

AI1110 Assignment 3

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CBSE 9th Probability

I. EXAMPLE 4

Question:

On one page of a telephone directory, there were 200 telephone numbers. The frequency distribution of their unit place digit (for example, in the number 25828573, the unit place digit is 3) is given in the table below.

Digit	0	1	2	3	4	5	6	7	8	9
Frequency	22	26	22	22	20	10	14	28	16	20

Without looking at the page, the pencil is placed on one of these numbers, i.e., the number is chosen at random. What is the probability that the digit in its unit place is 6?

Solution:

Let f_i = number of phone numbers with i in unit's place

The probability of random number having 6 in unit's place

$$= \frac{f_6}{\sum_{i=0}^9 f_i} \quad (1)$$

$$= \frac{14}{200} \quad (2)$$

$$= 0.07 \text{ or } 7\% \quad (3)$$