

Problem

EE22BTECH11035 - vikeath

question: someone is asked to take a number from 1 to 100. The probability that it is a prime number is

Solution:

RV	value	description
X	0	not prime number
	1	prime number

TABLE 0: random variable

We know that there are 25 prime numbers in between 1 to 100.

hence,

$$\Pr(X = 1) = \frac{25}{100} \quad (1)$$

$$= \frac{1}{4} \quad (2)$$