# 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 | description |
|----|-------------|
| $X$ | getting a prime number |
| $Y$ | getting a non-prime number |

TABLE 0: random variable

Here X+Y=100.we know that there are 25 prime numbers in between 1 to 100.

hence,

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

$$= \frac{1}{4} \tag{2}$$