

# Mathematics

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(Chapter – 13) (Statistics & Probability)(Exemplar Problems)  
(Class – X)

## Exercise 13.1

Choose the correct answer from the given four options:

### Question 25:

Someone is asked to take a number from 1 to 100. The probability that it is a prime is,

(A)  $\frac{1}{5}$

(B)  $\frac{6}{25}$

(C)  $\frac{1}{4}$

(D)  $\frac{13}{50}$

### Answer 25:

(C)  $\frac{1}{4}$

### Solution:

Total numbers of outcomes = 100

So, the prime numbers between 1 to 100 are 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89 and 97.

∴ Total number of possible outcomes = 25

∴ Required probability =  $\frac{25}{100} = \frac{1}{4}$

Hence, the option (C) is correct.

