

Assignment

Question-1

Given an integer N, the task is to count the number of ways so that N can be written as the sum of a prime number and twice of a square, i.e. $N = 2 \cdot A^2 + P$, where P can be any prime number and A is any positive integer.

Input: N = 9

Output: 1

Explanation:

9 can be represented as sum of prime number and twice a square in only one way –

$$N = 9 = 7 + 2 \cdot (1^2)$$

Input: N = 15

Output: 2

Explanation:

15 can be represented as sum of prime number and twice a square in two ways –

$$N = 15 = 7 + 2 \cdot (2^2)$$

$$N = 15 = 13 + 2 \cdot (1^2)$$

Question-2

Given a large integer as a string str, the task is find the number of matchsticks required to represent it.

Input: str = "56"

Output: 11

Explanation: 5 sticks are required to represent 5 and 6 sticks are required to represent 6.