

## TCS NQT 2025 -14th April coding questions with solution.(1st shift)

### Learning With Ram

Video Solution link 

<https://youtu.be/4pOIdbO68G0>

Q1) You are given two integers  $m$  and  $n$ . Your task is to compute the sum of the  $m$ -th prime number to the  $(m + n)$ -th prime number, inclusive.

Input:

Two integers  $m$  and  $n$  such that  $m \geq 1$  and  $n \geq 0$

Output:

Print the sum of the  $m$ -th,  $(m+1)$ -th, ...,  $(m+n)$ -th prime numbers.

Example 1:

Input:

$m = 2$

$n = 2$

Output:

Sum = 15

Explanation:

2nd prime = 3

3rd prime = 5

4th prime = 7

Sum =  $3 + 5 + 7 = 15$

eg-2

$n = 3$  Input:

$m = 1$

Explanation: We need the sum of 1st, 2nd, 3rd, and 4th prime numbers.

1st prime = 2

2nd prime = 3

3rd prime = 5

4th prime = 7

Sum =  $2 + 3 + 5 + 7 = 17$

Code:-

```
#include <iostream>
```

```
using namespace std;
```

```
// Function to check if a number is prime
```

```
bool isPrime(int num) {  
    if (num < 2) return false;  
    for (int i = 2; i*i <= num; i++) {  
        if (num % i == 0) return false;  
    }  
    return true;  
}
```

```
// Function to get the nth prime number
```

```
int getNthPrime(int n) {  
    int count = 0, num = 1;  
    while (count < n) {  
        num++;  
        if (isPrime(num)) count++;  
    }  
    return num;  
}
```

```
int main() {  
    int m, n;  
    cout << "Enter m and n: ";  
    cin >> m >> n;  
  
    int sum = 0;  
    for (int i = m; i <= m + n; i++) {  
        sum += getNthPrime(i);  
    }  
}
```

```
}
```

```
cout << "Sum = " << sum << endl;
```

```
return 0;
```

```
}
```

Q2) 📄 Game Rules:

The first input is an integer T, the number of times the game will be played.

For each game:

Read an integer r, the number of rows in a matrix. The number of columns is fixed at 3.

Then, read the next  $r \times 3$  integers as elements of the matrix.

Players take turns filling/playing the cells. Fiet always starts first.

The player who makes the last move wins the game.

📥 Input Format:

T → Number of games

r → Number of rows (for each game)

$r \times 3$  integers → Matrix elements for that game  
(repeat for T games)

Print the name of the winner for each game:

📊 Example Input:

2

2

1 2 3

4 5 6

3

7 8 9 --- fit

10 11 12 -- pia

13 14 15 -- fit

✅ Example Output:

Pia

Fiet

Code:-

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int T;
```

```
    cout << "Enter number of games: ";
```

```
    cin >> T;
```

```
    while (T-->0) {
```

```
        int r, value;
```

```
        const int c = 3;
```

```
        cout << "Enter number of rows for this game: ";
```

```
        cin >> r;
```

```
        int totalMoves = r * c;
```

```
        cout << "Enter the matrix values (" << r * c << " values): ";
```

```
        for (int i = 0; i < totalMoves; i++) {
```

```
            cin >> value; // Reading the matrix values
```

```
        }
```

```
        if (totalMoves % 2 == 0)
```

```
            cout << "Pia" << endl; // Even number of moves → Pia plays last
```

```
        else
```

```
            cout << "Fiet" << endl; // Odd number of moves → Fiet plays last
```

```
        }
```

```
    return 0;
```

```
}
```

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