

Patterns

10 February 2026 23:30

- Q1. Print all the prime number between 1 to n.
Q2. Print the following pattern:

```

* * * * *
* * * * *
* * * * *
* * * * *
* * * * *

```

Q3.

```

*
* *
* * *
* * * *

```

Q4.

```

*
* *
* * *
* * * *

```

Q5.

```

* * * *
* * *
* *
*

```

$$num = 4$$

Q.

```

1 2 3 4
      |
      v
4 3 2 1

```

$$num \% 10$$

$$17 \% 10$$

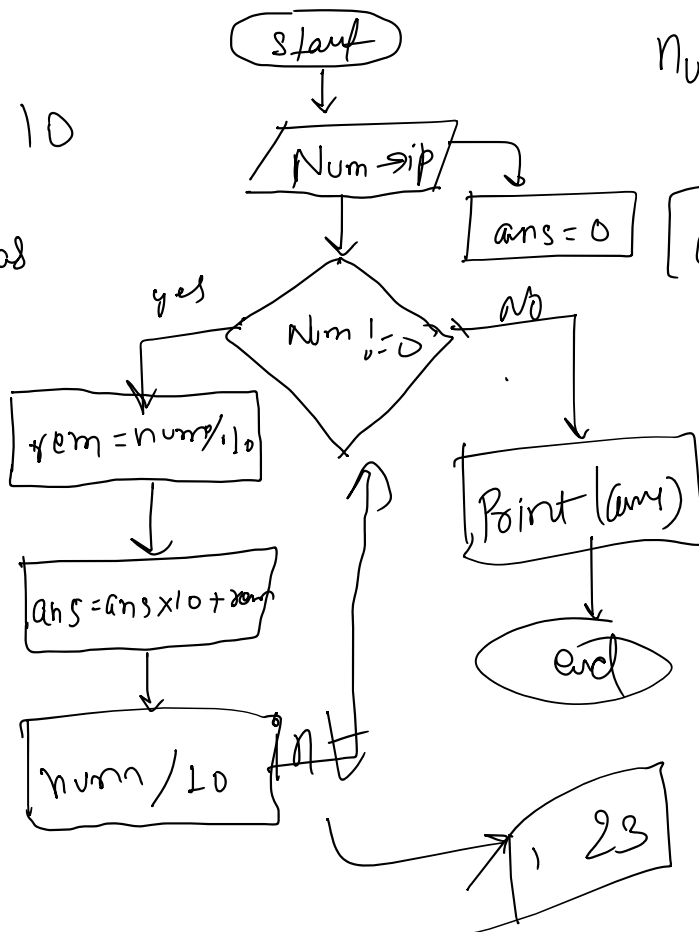
7

$$num \% 10 \rightarrow 10$$

$$num \% k \rightarrow \text{Int.}$$

$$[0 \dots k-1]$$

$$num / 10$$



123

123.4

123.9

123

...

$$\begin{aligned} \text{ans} &= 43 \\ \text{ans} &= 43 \times 10 + 2 = 430 + 2 = 432 \end{aligned}$$

Q. write the code to print the sum of the digits

Eg:- Num = 123

O/p = 6

```

    sum = 0
    while (n != 0) {
        int rem = n % 10;
        sum = sum + rem;
        n = n / 10;
    }
    print(sum);

```

Q. Num

→ if a given number is prime or not?

Q2 Ans:-

```

for (int i=1; i<=4; i++) {
    for (int j=1; j<=4; j++) {
        System.out.print("*");
    }
    System.out.print("\n");
}

```

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

$$\begin{bmatrix} * & * & * \\ * & * & * \\ * & * & * \end{bmatrix}$$

L ' ' J * * * / 4 4

i=1, j=2

↳ 1st row 1 Col

*

i=1 ; j=2

* *

i=1 ; j=3

* * *

i=2 ; j=1

j →

4 → 5

```

* * * * 1
* * * *
* * * *
* * * *

```

for (int i=0 ; i<4 ; i++)

for (int i=1 ; i<=3 ; i++)

Difference?