

Patterns

10 February 2026 23:30

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

```
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
```

```
* * * * *
* * * *
* * *
*
```

Q3.

```
* *
* *
* *
* * * *
```

Q4.

```
* *
* *
* *
* * *
```

$$n \times m = 4$$

Q. $\begin{matrix} 1 & 2 & 3 \\ & \swarrow & \downarrow \end{matrix}$ $\{ 4 \}$
 $\rightarrow 4 \ 3 \ 2 \ 1$

$n \times m \ \% \ 10$

$17 \% 10$

7

→ Int.

$n \times m \% 10$

→ Int

start

Num % ip

ans = 0

$n \times m \% (k)$

$[0 \dots k-1]$

Num != 0

yes

No

$rem = num \% 10$

Point (ans)

12 3

$n \times m / 10$

$ans = ans \times 10 + rem$

end

$num / 10$

123 . 4

123 . 9

{ }

123

$$\begin{array}{c}
 \text{Ans} = 43 \\
 \text{Ans} = 43 \times 10 + 2 \\
 = 432
 \end{array}$$

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

Eg:- Num = 123

$$0/p = \underline{\underline{6}}$$

$$\hookrightarrow \text{Sum} = 0$$

```

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

Q. num

\hookrightarrow if a given number is prime or not?

Q Ans

```

for (int i=0; i<4; i++)
    for (int j=1; j<4; j++)
        System.out.print("*");
    System.out.print("\n");
}
  
```

1	2	3
4	5	6
7	8	9

*	*	*	1	-
*	*	*	2	-
*	*	*	3	-
*	*	*	4	-

$\lfloor \uparrow \downarrow \rfloor * * * / \gamma \rightarrow$

$i=1, j=2$

$\hookrightarrow \text{start row } \downarrow \text{Col}$

*

$i=1; j=2$

$* *$
 $i=1; j=3 \quad \curvearrowleft \quad \curvearrowright \quad \curvearrowright$
 $* * *$
 $* * * \backslash$
 $* * *$
 $i=2; j=2 \quad \curvearrowright \quad \curvearrowright$
 $* * *$

{ for (int i=0; i<4; i++)
 { for (int i=1; i<3; i++)
 { Difference?