

Syntax :

```
for (Initialization ; Condition ; Update) {  
    // Statements to execute  
}
```

Q Print all the numbers from 1 to 10 using for loop.

```
int i = 1;
```

```
while (i <= 10) {
```

```
    sop(i);
```

```
    i++;
```

```
}
```

```
for (int i = 1; i <= 10; i++) {
```

```
    sop(i);
```

```
}
```

Q Print all odd numbers from 1 to N (Input) using for loop.

Q Read an input from user ( $N$ )  
Print all the factors of  $N$ .

Eg: 12: 1, 2, 3, 4, 6, 12

36: 1, 2, 3, 4, 6, 9, 12, 18, 36

$$\begin{array}{r} 6 \\ 4 \overline{) 24} \\ \underline{24} \\ 0 \end{array} \quad \checkmark$$

$$\begin{array}{r} 3 \\ 6 \overline{) 21} \\ \underline{18} \\ 3 \end{array} \quad (6 \times 4) = 24$$

$x$  is a factor of  $y$   
 $((y \% x) == 0) \quad \checkmark \quad (B)$

$$\underline{N} \rightarrow 1 \quad \checkmark$$

$$\underline{N} \% 0 \quad \times \rightarrow \infty$$

$$\begin{array}{c} 0 \\ \overline{0} \\ \text{X} \end{array} \rightarrow \begin{array}{c} 0 \\ \overline{1} \end{array} \quad \underline{0}$$

$i = 0$

$$N \rightarrow (\underline{N} \% N) == 0$$

$$x > N \Rightarrow (N \cdot 1 \cdot x) = 0 \quad ??$$

No

$$8 \Rightarrow \underline{1} [2, 3, 4, 5, 6, 7] \underline{8}$$

(count == 0)

Q

Read  $N$  from user.

Find the <sup>min count</sup> min no. of natural no's needed to be added from 1 to create a sum  $> N$

$$N = 11 \quad 1 + 2 + 3 + 4 + 5 \Rightarrow \{5\}$$

$$N = 10 \quad 1 + 2 + 3 + 4 \Rightarrow \{4\}$$

Doubt

1<sup>st</sup>  $\rightarrow$  4 8 5

2<sup>nd</sup>  $\rightarrow$  6 8 2

Code : Input (10) ✓

Output (4) ✓

(9) ✓  
↓  
(4)

