

# \* Assignment \*

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## ✓ 1st program

\* 1) Prime Number Program ← practice in  
(learn - logic)

2) ~~if~~ statement

3) While loop

4) For loop

5) Celsius to Fahrenheit Program

See read, learn, Solve yourself

lec 6

## Conditions and Loops in Java

if syntax

conditions :-

It provide check for statements

→ Check boolean condition

1) if-else statement

if (condition)

{

// Body

}

else {

(condition)

}

for loop

for ( initialization ; condition ; increment / decrement )

{  
    // body  
}

While loop

```
int num = 1;
While ( num <= 5 ) {
    System.out.println(num);
    num += 1;
}
```

do While

```
do {
    } While (condition);
```

→ int h = 1;

```
do {
    System.out.println(h);
    h++;
} While (h <= 5);
```



Not file > New > project  
 Src > new > package  
 Src > new  
 Src > new class

$n = 1385757879$

$$\begin{array}{r} 138 \\ 10 \overline{) 13839} \\ \underline{10} \phantom{0} \\ 38 \\ \underline{30} \\ 89 \end{array}$$

9

Remainder

$$13839 \div 10 = 9$$

$$1383 \div 10 = 3$$

$$138 \neq 8$$

$$13 = 3$$

$$9 = 3$$

check the number [same]

n = 13839

count=0  
Soln:-

```
public class CountNums {  
    public static void main(String[] args) {  
        int n = 45536;  
  
        int count = 0;  
        while (n > 0) {  
            int rem = n % 10;  
            if (rem == 5) {  
                count++;  
            }  
            n = n / 10;  
        }  
        System.out.println(count);  
    }  
}
```

Q.2

n = 23597

Ans:- 79532  
Reverse No

ans :-  $7 \times 10 + 9 = 79$

$79 \times 10 + 5 = 795$

$795 \times 10 + 3 = 7953$

$7953 \times 10 + 2 = 79532$

~~79~~  
23597



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 program :-

```
public class Reverse {  
    public static void main(String[] args)  
        int num = 38479;
```

```
        int ans = 0;  
        while (num > 0) {  
            int rem = num % 10;  
            num /= 10;
```

```
            ans = ans * 10 + rem;  
        }
```

```
        System.out.println(ans);  
    }  
}
```

## Program Calculator

```
public class calculator {  
    public static void main (String [] args) {  
        Scanner in = new Scanner (System.in);  
        // take input from user till user does not  
        // press X or x
```

```
        int ans = 0;
```

```
        while (true) {
```

```
            // take the operator as input  
            System.out.print ("Enter the operator");  
            char op = in.next().trim().charAt(0);
```

```
            if (op == '+' || op == '-' || op == '*' || op == '/'  
                || op == '%') {
```

```
                // input two numbers
```

```
                System.out.print ("Enter two numbers:");
```

```
                int num1 = in.nextInt();
```

```
                int num2 = in.nextInt();
```

```
                if (op == '+') {
```

```
                    ans = num1 + num2;
```

```
                }
```

```
                if (op == '-') {
```

```
                    ans = num1 - num2;
```

```
                }
```

```
                if (op == '*') {
```

```
                    ans = num1 * num2;
```



```

if (op == '/') {
    if (num2 != 0) {
        ans = num1 / num2;
    }
}

```

```

if (op == '%') {
    ans = num1 % num2;
}

```

```

} else if (op == 'x' || op == 'X') {
    break;
} else {
    system.out.println("Invalid operation");
    system.out.println(ans);
}
}
}

```

== ← X

.equals ← ✓

check only value

check

value as well as references

In switch statements, you can jump to various cases based on your expression.

Syntax:-

```
switch (expression) {
```

```
    // case
```

```
    case one:
```

```
        // do something
```

```
        break;
```

```
    case two;
```

```
        // do something
```

```
        break;
```

```
    default;
```

```
        // do something
```

```
}
```

Note

- Cases have to be the same type as expressions, must be a constant or literal

- duplicate case values are not allowed.

- break is used to terminate the sequence.

- if break is not used, it will continue to next case

- default will execute when none of the above does

- if default is not at the end, put break after it.