

Loops

Loop for

Syntax

```
for ([инициализация счетчика]; [условие]; [изменение счетчика]) {  
    // operators  
}
```

Example

```
for (int i = 1; i < 9; i++) {  
    System.out.printf("Квадрат числа %d равен %d.\n", i, i * i);  
}
```

Example

```
int i = 1;  
for ( ; ; ) {  
    System.out.printf("Квадрат числа %d равен %d.\n", i, i * i);  
}
```

Example

```
int i = 1;
for ( ; i < 9; ) {
    System.out.printf("Квадрат числа %d равен %d.\n", i, i * i);
    i++;
}
```

Example

```
int n = 10;  
for (int i = 0, j = n - 1; i < j; i++, j--) {  
    System.out.println(i * j);  
}
```

Loop **foreach**

Syntax

```
for (тип_данных название_переменной : контейнер) {  
    // действия  
}
```

Example

```
int[] nums = new int[]{1, 2, 3, 4, 12, 9};  
for (int i : array) {  
    System.out.println(i);  
}
```

Example

```
int[] nums = new int[]{1, 2, 3, 4, 12, 9};  
for (int i = 0; i < array.length; i++) {  
    System.out.println(array[i]);  
}
```

Example

```
int[] nums = new int[]{1, 2, 3, 4, 12, 9};  
for (int i = 0; i < array.length; i++) {  
    array[i] = array[i] * 2;  
    System.out.println(array[i]);  
}
```

Loop while

Syntax

```
while (условие) {  
    //действия  
}
```

Example

```
int[] nums = new int[]{1, 2, 3, 4, 12, 9};  
for (int i = 0; i < nums.length; i++) {  
    if (nums[i] > 10) {  
        break;  
    }  
    System.out.println(nums[i]);  
}
```

Loop **do** **..** **while**

Syntax

```
do {  
    //действия  
} while (условие);
```

Example

```
int j = 7;  
do {  
    System.out.println(j);  
    j--;  
} while (j > 0);
```

Example

```
int j = -1;  
do {  
    System.out.println(j);  
    j--;  
} while (j > 0)
```

Operator **break**

Example

```
int[] nums = new int[]{1, 2, 3, 4, 12, 9};  
for (int i = 0; i < nums.length; i++) {  
    if (nums[i] > 10) {  
        break;  
    }  
    System.out.println(nums[i]);  
}
```

Operator **continue**

Example

```
int[] nums = new int[]{1, 2, 3, 4, 12, 9};  
for (int i = 0; i < nums.length; i++) {  
    if (nums[i] > 10) {  
        continue;  
    }  
    System.out.println(nums[i]);  
}
```