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# Fundamentos de Java

Parte 4


**Presenta**

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```
int a = 123;
```

```
while (a > 0) {  
    System.out.printf("[%d] ", a);  
    a = a / 3;  
}
```



[123] [41] [13] [4] [1]

 Process finished with exit code 0

```
int a;
```

```
do {
```

```
    a = (int)(Math.random() * 1000);
```

```
    System.out.printf("[%d] %n", a);
```

```
} while (a < 900);
```



[825]

[524]

[669]

[611]

[301]

[467]

[344]

[453]

[996]




Process finished with exit code 0

```
public class LearnLoops {
```

no usages

```
} public static void main(String[] args) {
```

```
}  for (int i = 1; i <= 5; i++) {  
    System.out.printf("Iteration [%d]", i);
```

```
} }
```

```
} }
```

```
}
```



```
int sum = 0;
```

```
for (int i = 1; i <= 100; i++) {
```

```
    sum = sum + i;
```

```
}
```



```
System.out.printf("1 + 2 + 3 + ... + 98 + 99 + 100 = %d %n", sum);
```

1 + 2 + 3 + ... + 98 + 99 + 100 = 5050



Process finished with exit code 0



✓ Buscando: 'create program in java that sum from 1 to 100'

✓ Generando respuestas para usted...

To create a program in Java that sums from 1 to 100, you can use a for loop to iterate over the numbers and add them to a variable that stores the sum. For example <sup>1</sup> <sup>2</sup>:

```
public class SumProgram {
    public static void main(String[] args) {
        int sum = 0; // declare and initialize a variable to store the sum
        for (int i = 1; i <= 100; i++) { // use a for loop to iterate from 1 to 100
            sum = sum + i; // add each number to the sum variable
        }
        System.out.println("The sum from 1 to 100 is " + sum); // print the result
    }
}
```

This program will output: The sum from 1 to 100 is **5050**.

Alternatively, you can use the formula  $S = n(n+1)/2$  that we discussed earlier <sup>3</sup>. For example:

```
public class SumProgram {
    public static void main(String[] args) {
        int n = 100; // declare and initialize a variable for the number of terms
        int sum = n * (n + 1) / 2; // use the formula to calculate the sum
        System.out.println("The sum from 1 to " + n + " is " + sum); // print the result
    }
}
```

This program will also output: The sum from 1 to **100** is **5050**.

Más información: [1. stackoverflow.com](#) [2. stackoverflow.com](#) [3. javatpoint.com](#)

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Can you explain how the for loop works?

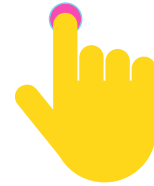
Can you run this code and show me?



create program in java that sum from 1 to 100

45/2000

```
int[] nums = new int[] { 4, 5, 3, 6, 5, 7, 2, 1 };
```



```
int sum = 0;
```

```
for (int i = 0; i < nums.length; i++) {
```

```
    sum = sum + nums[i];
```

```
}
```

```
System.out.printf("Total nums: %d %n", nums.length);
```

```
System.out.printf("Sum of nums: %d %n", sum);
```

Total nums: 8

Sum of nums: 33




Process finished with exit code 0

```
ArrayList<Double> prices = new ArrayList<>();
```

```
prices.add(17.5);
prices.add(18.99);
prices.add(23.21);
prices.add(15.95);
prices.add(98.17);
```

```
double sum = 0.0;
```

```
for (int i = 0; i < prices.size(); i++) {
    double price = prices.get(i);
    sum = sum + price;
}
```



```
System.out.printf("Total prices: %d %n", prices.size());
```

```
System.out.printf("Sum of prices: %.2f %n", sum);
```

Total prices: 5

Sum of prices: 173.82



Process finished with exit code 0

```
for (double price : prices) {
```

```
    sum = sum + price;
```

```
}
```



```
ArrayList<String> fruits = new ArrayList<>();
```

```
fruits.add("Apple");
```

```
fruits.add("Kiwi");
```

```
fruits.add("Melon");
```

```
fruits.add("Pineapple");
```

```
fruits.add("Mango");
```

```
for (String fruit : fruits) {
```

```
    System.out.printf("Fruit: %s %n", fruit);
```

```
    System.out.printf("Length: %d %n", fruit.length());
```

```
    System.out.printf("Is a Kiwi? %b %n", fruit.equals("Kiwi"));
```

```
}
```



```

Fruit: Apple
Length: 5
Is a Kiwi? false
Fruit: Kiwi
Length: 4
Is a Kiwi? true
Fruit: Melon
Length: 5
Is a Kiwi? false
Fruit: Pineapple
Length: 9
Is a Kiwi? false
Fruit: Mango
Length: 5
Is a Kiwi? false

```

Process finished with exit code 0

