



# Java

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## Assignment-3

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Topic : Range of data in float & double,  
Digits with printed decimal point

# Range of data in float & double

## Range of float:

Float is a 32-bit in size. It represents the decimal range is in between  $-3.4 \times 10^{38}$  to  $+3.4 \times 10^{38}$ .

Here, e mean Exponent,  $-3.4$  raise to 038 to  $+3.4$  raise to 038 is the range of float.

## Range of double:

Double is a 64-bit in size. It represents the decimal range is in between  $-1.8 \times 10^{308}$  to  $+1.8 \times 10^{308}$ .

i.e,  $-1.8$  raise to 308 to  $+1.8$  raise to 308 is the range of double

# Digits with printed decimal point

## Digits in float:

Decimal digits in float after the precision is 7.

## Digits in double:

Decimal digits in double after the precision is 15.

## Printing the floating point:

By using printf statement we can print the floating points in java. Syntax to print floating point is

```
Printf("%. 2f", val);
```

Here, %.2f tells java to return your variable(val) with 2 decimal places.

**Write a java program using float and double?**

```
class Floatdouble
{
    public static void main(String[] args)
    {
        float a = 3.14f;
        double b = 2.718281828459045;
        System.out.printf("float is: %.2f",a);
        System.out.printf(" Double is: %.2f",b);
    }
}
```

**Output:**

```
C:\Users\ANUSHA KASTHURI\OneDrive\Desktop\Java at Kodnest>javac Floatdouble.java
C:\Users\ANUSHA KASTHURI\OneDrive\Desktop\Java at Kodnest>java Floatdouble
float is: 3.14 Double is: 2.72
```