

```
// Conlin
// 8-30-16
// PrintFormatEx.java
// This gives examples of
// - declare and initialize variables of ...
// - using printf and Format to do ...
// - For printf, there's an ex of printing a % symbol.
```

```
public class PrintFormatEx
{
    public static void main( String [] args )
    {
        String line1; // declare a String
        line1 = "Example1"; // initializes (really it instantiates) the String
        String line2 = "Example2"; // declare and initializes (instantiates)
        double num;
        num = 123.4567;

        System.out.println("\n\n\n");
        System.out.println("String examples using a field width of 20 and printf:");
        System.out.printf("%20s", line1);
        System.out.println("|"); // this is so you can see the end of the line.
        System.out.printf("%-20s", line1);
        System.out.println("|");

        System.out.println("\nString examples using a field width of 50 and Format:");
        System.out.println( Format.left(line2, 50) + "|" );
        System.out.println( Format.center(line2, 50) + "|" );
        System.out.println( Format.right(line2, 50) + "|" );

        // printf examples for decimals
        System.out.println("\nDecimal examples using printf:");
        System.out.printf("A number, %6.2f printed, to two places.", num);
        System.out.printf("\nA number, %6.3f printed, to three places.", num);

        // Format examples for decimals
        System.out.println("\n\nDecimal examples using Format:");
        System.out.println("A number, " + Format.left(num, 6, 2)
            + " printed, to two places.");
        // compare the spaces in the String and the field width. Then notice the outputs
        // are the same for the two Format examples
        System.out.println("A number," + Format.center(num, 8, 2)
            + "printed, to two places.\n");

        // Example to print a % symbol when using printf
        // Two things to notice. First, for now, we will declare and initialize a variable
        // to some value that we know won't be possible, then we will set the variable
        // equal to some work (expression, method, etc.)
        // Second, notice the difference between the expression and the String literal
        // that is printed.
```

```

        int answer = -1;
        answer = 5*4%6;
        System.out.printf("5*4%%6 = %15d", answer);
        System.out.println("\n\n\n");
    }
}

```

Output in the terminal window: (I put in the labeled markers in red and blue to help you see it.

String examples using a field width of 20 and printf:

```

        Example1|
Example1      |

```

String examples using a field width of 50 and Format:

```

Example2
                Example2
                                Example2|
20              30
|-----|-----|

```

Decimal examples using printf:

A number, 123.46 printed, to two places.

A number, 123.457 printed, to three places.

Decimal examples using Format:

A number, 123.46 printed, to two places.

A number, 123.46 printed, to two places.

5*4%6 = 2