

The printf() Function

Format Specifiers

As we've seen, a format specifier (such as %d or %c) is used to control what format will be used by printf () to print a particular variable. In general, you want to match the format specifier to the type of variable you're printing. We've already used four of the format specifiers available with printf (): %d to print integers, %c to print characters, %s to print strings, and %f to print floating point numbers. Although these are by far the most commonly used, there are others as well. Here's a list of the format specifiers for printf ():

%c	Single character
%s	String
%d	Signed decimal integer
%f	Floating point (decimal notation)

printf Worksheet

1. `System.out.printf("%+3d",674);`
2. `System.out.printf(" $%2.2f ",6.4);`
3. `String p = "%3.1f";`
`double q=3.567;`
`System.out.printf(p,q);`
4. `double b = 15 / 4.5;`
`System.out.printf(" %.2f",b);`
5. `System.out.printf(%+4d",16384);`

6. `String p = "%3.1f";`
`double q = 2.345;`
`System.out.printf(p, q);`

7. `String p = "%+5d";`
`int q = 34;`
`System.out.printf(p, q);`

8. `System.out.printf("%+06",2012);`

9. `double v = 19.541;`
`System.out.printf("%4.2f",v);`

10. `System.out.printf(" %s\n%s\n", " Welcome to ", " Java Programming!");`

11. Find the errors in the following lines of code. If there are no errors, write correct.

a. `System.out.printf("$%,10.2", 9326.37);`
b. `System.out.printf("%5s", "Hi Bill");`
c. `System.out.printf("%.4s", "Hi Bill");`
d. `System.out.println("%d", 24);`
e. `System.out.printf("%$8d", 300);`
f. `System.out.printf("%s7", "Cabinet");`
a:
b:
c:
d:
e:
f:

12. Find the output of the following code segment. Be sure to format your output correctly.

```
System.out.printf("%-4s", "****");
System.out.printf("%4s", "****");
System.out.println();
System.out.printf("%d", 12345678);
System.out.println();
System.out.printf("%10.2f", 75.123);
System.out.printf("%5.2f", 75.126);
System.out.println();
System.out.printf("%.2s", "Chile");
System.out.printf("%2s", "Pepper");
```