

BJP5 Self-Check 5.2: forToWhile

Language/Type: Java for loops while loops
Author: Marty Stepp (on 2019/09/19)

Convert each of the following for loops into an equivalent while loop. (You might need to rename some variable names, since all four parts a-d are in the same scope.)

Type your solution here:

```
1 // 1.
2 System.out.println("1.");
3 int max = 5;
4 int n = 1;
5 while (n <= max) {
6     System.out.println(n);
7     n++;
8 }
9 System.out.println();
10
11 // 2.
12 System.out.println("2.");
13 int total = 25;
14 int number = 1;
15 while (number <= (total / 2)){
16     total = total - number;
17     System.out.println(total + " " + number);
18     number++;
19 }
20 System.out.println();
21
22 // 3.
23 System.out.println("3.");
24 int i = 1;
25 while (i <= 2){
26     int j = 1;
27     while (j <= 3){
28         int k = 1;
29         while (k <= 4){
30             System.out.print(" ");
31             k++;
32         }
33         j++;
34         System.out.print("!");
35     }
36     System.out.println();
37     i++;
38 }
39 System.out.println();
40
41 // 4.
42 System.out.println("4.");
43 int num = 4;
44 int count = 1;
45 while (count <= num){
46     System.out.println(num);
47     num = num / 2;
48     count++;
49 }
```

This problem asks for **bare code**. Submit a fragment of Java code as described. Do not write any class or method heading around your code; just write the lines of code that will produce the result described.

Submit

You passed 1 of 1 tests.

Go to the next problem: whileLoopMystery1

test #1: test1

BJP5 Exercise 2.12: nestedNumbers

Language/Type: Java for loops nested loops
Author: Roy McElmurry (on 2019/09/19)

Write nested for loops that produce the following output:

```
000111222333444555666777888999
000111222333444555666777888999
000111222333444555666777888999
```

Type your solution here:

```
1
2 for (int lines = 0; lines < 3; lines++){
3     for (int inside = 0; inside < 10; inside++){
4         for (int num = 0; num < 3; num++){
5             System.out.print(inside);
6         }
7         System.out.println();
8 }
```

This problem asks for **bare code**. Submit a fragment of Java code as described. Do not write any class or method heading around your code; just write the lines of code that will produce the result described.

Submit

You passed 1 of 1 tests.

Go to the next problem: nestedNumbers2

test #1: test1

console output: 000111222333444555666777888999

BJP5 Exercise 2.10: numbersOutput60

Language/Type: Java for loops nested loops
Author: Whitaker Brand (on 2019/09/19)

It's common to print a rotating, increasing list of single-digit numbers at the start of a program's output as a visual guide to the columns of the output to follow. With this in mind, write nested for loops to produce the following output, with each character wide:

```
123456789012345678901234567890123456789012345678901234567890
```

Type your solution here:

```
1 for (int i = 0; i < 6; i++){
2     for (int k = 0; k < 9; k++){
3         System.out.print(" ");
4         System.out.print("|");
5     }
6     System.out.println();
7
8     for (int a = 0; a < 6; a++){
9         for (int b = 1; b < 10; b++){
10            System.out.print(b);
11        }
12        System.out.print("0");
13 }
```

This problem asks for **bare code**. Submit a fragment of Java code as described. Do not write any class or method heading around your code; just write the lines of code that will produce the result described.

Submit

You passed 1 of 1 tests.

Go to the next problem: numbersOutputConstant

test #1: output

console output: 123456789012345678901234567890123456789012345678901234567890

result: pass

BJP5 Exercise 2.15: printDesign

Language/Type: Java for loops method basics nested loops
Author: Marty Stepp (on 2019/09/19)

Write a method called printDesign that produces the following output. Use n

```
-----1-----
-----333-----
-----55555-----
-----7777777-----
-----999999999-----
```

Type your solution here:

```
1 public static void printDesign() {
2     for (int num = 1; num < 10; num += 2){
3         for (int dash = 0; dash < (11-num)/2; dash++){
4             System.out.print("-");
5             for (int n = 0; n < num; n++){
6                 System.out.print(num);
7                 for (int end = 0; end < (11-num)/2; end++){
8                     System.out.print("-");
9                 }
10            }
11        }
12    }
13 }
```

This is a **method problem**. Write a Java method as described. Do not write a complete program or class; just write the method code.

Submit

You passed 1 of 1 tests.

Go to the next problem: SlashFigure

test #1: output

○ **BJP5 Exercise 2.21: StarFigure2**

Language/Type: [Java](#) [class constants](#) [escape sequences](#) [for loops](#) [new](#)
Author: Kimberly Todd (on 2019/09/19)

Modify your `StarFigure` code from the previous problem to use a `col` argument (left) and `6` (right):

[illegible]

(You must solve this problem using only ONE public static final the way described in this problem.)


Type your solution here:

```

1 public class StarFigure2{
2     public static final int size;
3     public static void main(String[] args){
4         for (int row = 1; row <= size; row++){
5             for (int fslash = 1; fslash <= (4*
6                 System.out.print('/');
7             }
8             for (int star = 0; star < ((row-1)*
9                 System.out.print('*');
10            }
11            for (int bslash = 1; bslash <= (4*
12                System.out.print('\');
13            }
14            System.out.println();
15        }
16    }
17 }

```

This problem asks for a **complete program**. Write a complete Java program as a class (no `import` statements.)

 Submit

✔ You passed 4 of 4 tests.

○ BJP5 Self-Check 2.23: completeLoop

Language/Type: Java [basics for loops](#)
Author: Marty Stepp (on 2019/09/19)


Complete the following for loop to produce the following output:

-4
14
32
50
68
86

Type your solution here:

```
1 for (int i = 1; i <= 6; i++) {
2     System.out.println(18 * i - 22);
3 }
```

This problem asks for **bare code**. Submit a fragment of Java code as described. Do not write any comments. Just write the lines of code that will produce the result described.

 Submit

✔ You passed 1 of 1 tests.

[Go to the next problem: oddStuff](#)

test #1: output

```
console output: -4
                14
                32
                50
```

- **BJP5 Exercise 2.22: DollarFigure**

Language/Type: [Java classes for loops nested loops](#)
 Author: Marty Stepp (on 2019/09/19)

Write a Java program called `DollarFigure` that produces the following output. Use `new` figure.

```

SSSSSSSS+*****SSSSSS
**SSSSS+*****SSSSS+
***SSSS+*****SSSS***
*****SSS*****SSS*****
*****SS*****SS*****
*****SS*****SS*****
*****SS*****SS*****
*****SS*****SS*****

```

Type your solution here:

```

1 public class DollarFigure{
2     public static void main(String[] args){
3         int num = 7;
4         for (int row = 1; row <= 7; row++){
5             for (int star = 2; star < 2 * row; star++){
6                 System.out.print(" ");
7             }
8             for (int dollar = 1; dollar <= num; dollar++){
9                 System.out.print("$");
10            }
11            for (int star2 = num * 2; star2 > 0; star2--){
12                System.out.print("*");
13            }
14            for (int dollar2 = 1; dollar2 <= num; dollar2++){
15                System.out.print("$");
16            }
17            for (int star3 = 2; star3 < 2 * row; star3++){
18                System.out.print("*");
19            }
20            System.out.println();
21            num--;
22        }
23    }
24 }

```

This problem asks for a **complete program**. Write a complete Java program as a class with a main method. (No import statements.)

 Submit

✔ You passed 1 of 1 tests.

[Go to the next problem: DollarFigure2](#)

test #1: output

```
console output: $$$$$$*~***~***~***~***$$$$$$
```