

SECTION 2: Guess the Output

Snippet 1:

```
public class NestedLoopOutput {  
    public static void main(String[] args) {  
        for (int i = 1; i <= 3; i++) {  
            for (int j = 1; j <= 2; j++) {  
                System.out.print(i + " " + j + " ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Assignment - 8.

Section - II

Day - 3.

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* Snippet 1.

i	j		Output
1	1	1 1	1 1 1 2
	2	1 1 1 2	1 1 1 2
2	1	2 1	2 1 2 2
	2	2 1 2 2	3 1 3 2
3	1	3 1	
	2	3 1 3 2	

Snippet 2:

```
public class DecrementingLoop {  
    public static void main(String[] args) {  
        int total = 0;  
        for (int i = 5; i > 0; i--) {  
            total += i;  
            if (i == 3) continue;  
            total -= 1;  
        }  
        System.out.println(total);  
    }  
}
```

* Snippet 2.

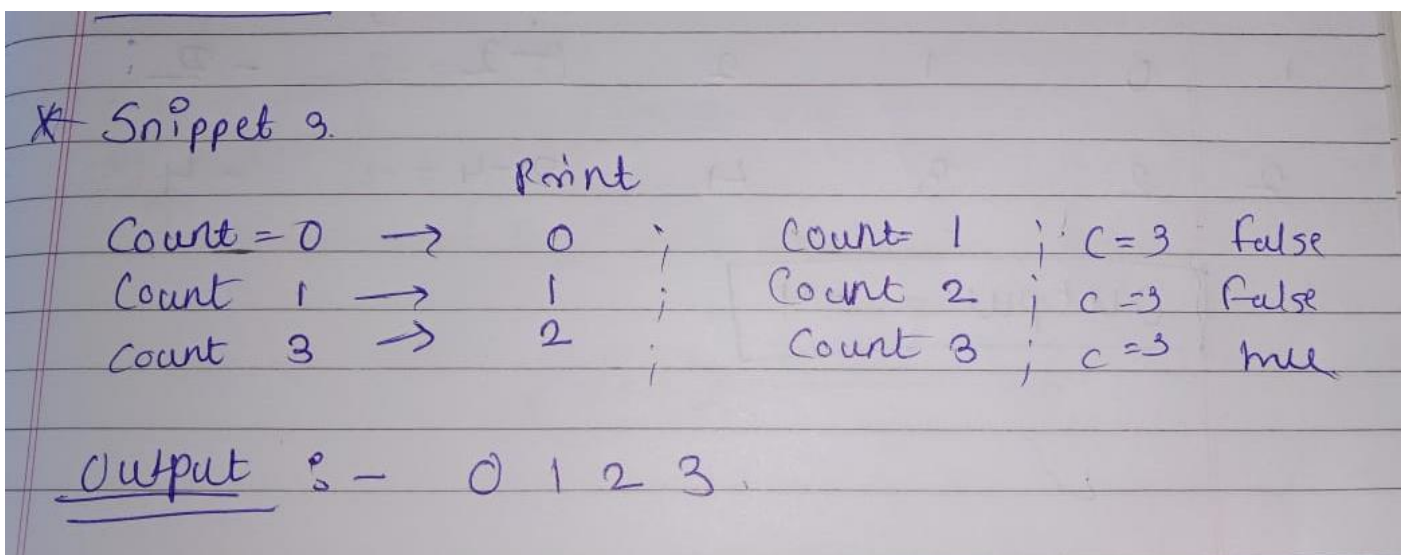
	i	total += i	total -= 1	
1	5	5	4	4
	4	8	7	7
	3	10	←	10
	2	12	11	11
	1	12	11	11

output = 11.

* Snippet 2

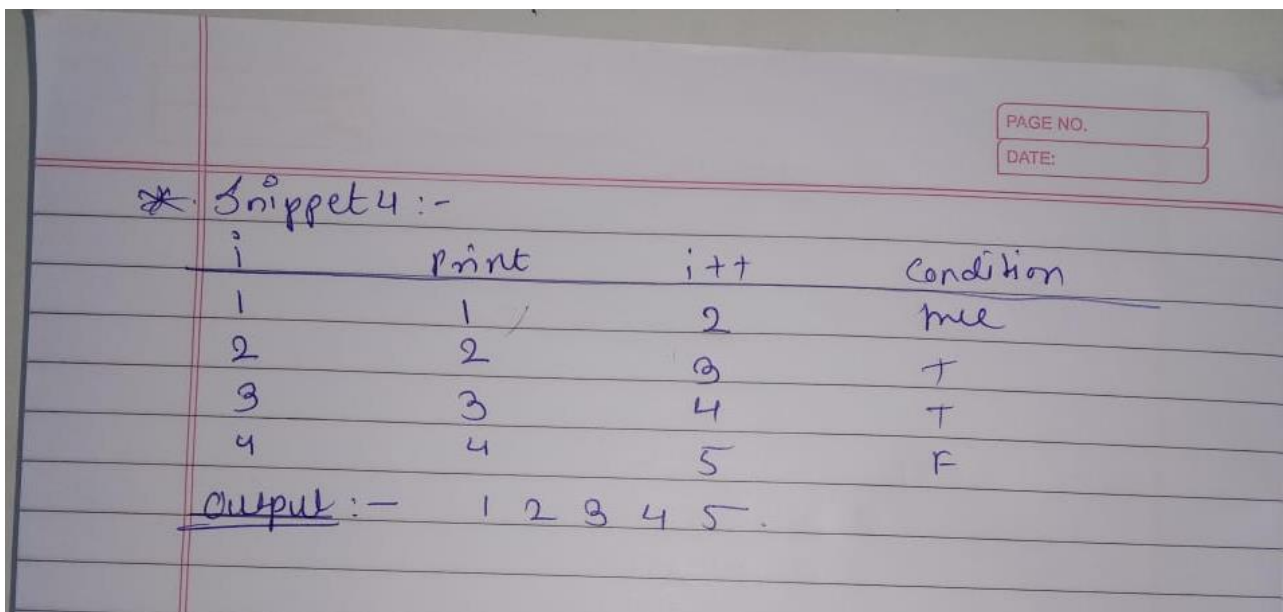
Snippet 3:

```
public class WhileLoopBreak {  
    public static void main(String[] args) {  
        int count = 0;  
        while (count < 5) {  
            System.out.print(count + " ");  
            count++;  
            if (count == 3) break;  
        }  
        System.out.println(count);  
    }  
}
```



Snippet 4:

```
public class DoWhileLoop {  
    public static void main(String[] args) {  
        int i = 1;  
        do {  
            System.out.print(i + " ");  
            i++;  
        } while (i < 5);  
        System.out.println(i);  
    }  
}
```



A handwritten table and output for Snippet 4. The table has four columns: i, print, i++, and Condition. The rows show the state of the loop for i values 1 through 4. The output is shown as '1 2 3 4 5'.

i	print	i++	Condition
1	1	2	True
2	2	3	T
3	3	4	T
4	4	5	F

Output :- 1 2 3 4 5.

Snippet 5:

```
public class ConditionalLoopOutput {  
    public static void main(String[] args) {  
        int num = 1;  
        for (int i = 1; i <= 4; i++) {  
            if (i % 2 == 0) {  
                num += i;  
            } else {  
                num -= i;  
            }  
        }  
        System.out.println(num);  
    }  
}
```

* Snippet 5 :-

i	$i \% 2 = 0$	$num = \text{num} \pm i$	
1	N	$1 - 1$	0
2	Y	$0 + 2$	2
3	N	$2 - 3$	-1
4	Y	$-1 + 4$	3

Output : - 3

Snippet 6:

```
public class IncrementDecrement {  
    public static void main(String[] args) {  
        int x = 5;  
        int y = ++x - x-- + --x + x++;  
        System.out.println(y);  
    }  
}
```

* Snippet 6 :-

~~x = 5 y = ++x - x-- + --x + x++;~~

~~y = ++x - x-- + --x + x++;~~

~~x = 5 ++x x-- --x~~
~~6 5~~

* Snippet 6 :-

y = ++x - x-- + --x + x++;

x = 5	++x	6	return	↓
	x--	6		
	--x	5		y = 6 - 6 + 4 + 4
	x++	4		y = 8
		5		

Snippet 7:

```
public class NestedIncrement {  
    public static void main(String[] args) {  
        int a = 10;  
        int b = 5;  
        int result = ++a * b-- - --a + b++;  
        System.out.println(result);  
    }  
}
```

Snippet 7.
 $result = ++a * b-- - --a + b++;$
 $a = 10, b = 5$

a = a	b
11 → 11	5 → 4
10 → 10	5

$result = 11 * 5 - 10 + 4$
 $= 55 - 10 + 4$
 $= 49.$

Output = 49.

Snippet 8:

```
public class LoopIncrement {  
    public static void main(String[] args) {  
        int count = 0;  
        for (int i = 0; i < 4; i++) {  
            count += i++ - ++i;  
        }  
        System.out.println(count);  
    }  
}
```

* Snippet 8 :-

Itz	i	i++	++i	count (i++ - ++i)	Count += i++ - Ans ++i
1	0	1	2	0 - 2 = -2	-2
2	2	3	4	2 - 4 = -2	-4

Output = -4