

Assignment - 3

Section-2 Guess the output

Snippet - 1

```

for(int i = 1, i <= 3 ; i++)
{
    for(int j=1, j <= 2 ; j++)
        System.out.println(i+" "+j);
}
System.out.println();
    
```

Step-1

- 1) i=1 then it come to inner for
j=1 and print 1 1 then
j=2 and print 1 2 enter
inner for end.
- 2) i=2 then j=1 and print 2 1
then j=2 and print 2 2 enter
- 3) i=3 then j=1 & print 3 1
then j=2 and print 3 2
final output

| | | | |
|---|---|---|---|
| 1 | 1 | 1 | 2 |
| 2 | 1 | 2 | 2 |
| 3 | 1 | 3 | 2 |

snippet 2 .

```
int total = 0
for (int i = 5; i > 0; i = )
{
    total += i;
    if (i == 3) continue;
    total = total - 1
}
```

}

System.out.println(total);

→ step

1) $i = 5$; ~~total~~

$total += i$

$0 = 0 + 5$;

Total = 5

2) $i = 4$

$t = 4 + 5$

$t = 9$

3) $i = 3$

$t = 3 + 9$

$t = 12$

if ($i = 3$)

$t = 12 - 1$

$t = 1$

print 11

output : 11

Snippet 3 .

```

int count=0;
while (count < 5)
{
    sop (cout + " ");
    count++;
    if (count == 3)
        break;
}
s.p.p (count);

```

Step -

1) while ($0 < 5$)

print 0

count++ $0 \geq 1$.

2) while ($1 < 5$)

print 1

count++ $1 = 2$

3) while ($2 < 5$)

print 2

count++ $2 = 3$

if ($3 == 3$)

break;

out of while loop

~~sop~~ sop (count) = 3.

Output = 0 1 2 3

Snippet 4.

```

int i = 1 .
do {
    sop (i + " ");
    i++;
} while (i < 5);
sop (i);

```

Stepⁿ

1) $i = 1$

print $i = 1 -$
 $i++ = 2$

while ($2 < 5$) - true

2) $i = 2$

print $i = 2 -$
 $i++ = 3$

while ($3 < 5$) true

3) $i = 3$

print $i = 3 -$
 $i++ = 4$

while ($4 < 5$) true .

4) $i = 4$

print $i = 4$
 $i++ = 5$

while ($5 < 5$) - false

out of loop

sop (i) = 5

output - 1 2 3 4 5

Snippet 5.

```

num = 1
for (i = 1; i <= 4; i++)
    if (i % 2 == 0)
        num = num + i;
    else
        num = num - i;
    }

sop (num);

```

Step

1) $i = 1$,
if ($i \% 2 == 0$) - false

else
 $num = 1 - 1 = 0$

2) $i = 2$
if ($2 \% 2 == 0$) True
 $num = 0 + 2 = 2$

3) $i = 3$
if ($3 \% 2 == 0$) False
else
 $num = 2 - 3 = -1$

4) $i = 4$
if ($4 \% 2 == 0$) True
 $num = 1 + 2 = 3$

out of loop.
s.o.p (num)

output = 3

snippet 6

~~int X = 5;~~

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

~~y = 6 - 6 + 4 + 5~~

~~y = 6 - 6 + 4 + 5~~

~~y = 6 - 6 + 4 + 4~~

~~y = 9~~

Snippet 7

~~a = 10;~~

~~b = 5;~~

~~result = ++a * b -- - - - a + b ++;~~

~~11 * 5 - 10 + 10;~~

~~= 11 * 5 - 10 + 4~~

~~Output = 49~~

Snippet 8

~~cout = 0~~

~~for (int i = 0; i < 4; i++)~~

~~{ count = cout + i++ - ++i~~

~~y~~

~~sop(count)~~

~~Step -~~

Step

$$1) \quad i = 0$$

$$\text{count} = 0 + 0 - 2 = -2$$

$$2) \quad i = 2$$

$$\text{count} = -2 + 2 - 4 = -4$$

SOP(count)

output = -4