

Topic: Control Structures
CS 150 Introduction To CS
Python - Worksheet 05
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1) Assume a, b, and c have been assigned int values. Find the output of the following code segment in each of the following three cases:

a) a = 10

b = 9

b) a = 5

b = 9

c) a = 5

b = 5

```
if a == b:  
    c = a + b  
elif a < b:  
    c = a - b  
else:  
    c = b - a  
print(c)
```

a)

-1

b)

-4

c)

10

2) Find the output of the following code segment.

OUTPUT

```
a = 10  
while a < 20:  
    print(a)
```

```
10  
10  
10  
10  
10  
...
```

Infinite loop printing 10 until the system run out of resources and crashes

3) Find the output of the following code segment.

```
for a in range(25, 5, -4):  
    print(a)
```

```
25  
21  
17  
13  
9
```

4) Find the output of the following code segment.

```
for x in range(1, 5):  
    for y in range(1, 5):  
        print("{0:5d}".format(y), end="")  
    print()
```

1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4

5) Find the output of the following code segment.

```
for a in range(125, 750, 200):  
    print("b values")  
    b = 1000  
    while b > a:  
        print(b, end=" ")  
        b = b - a  
    print()  
    print("a = ", a)  
    print()
```

b values 1000 875 750 625 500 375 250 a = 125 b values 1000 675 350 a = 325 b values 1000 a = 525 b values 1000 a = 725
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