

Quiz: Counting

Total Score: $/2^2$

Printed Name:

Quiz rules:

1. You MAY use any printed or handwritten notes.
2. You MAY NOT use a computer or any other electronic device.

Problem 1. Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ N=4
3 $ cat > foo.py <<EOF
4 count = 0
5 for i in range($N):
6     for j in range($N):
7         for k in range($N):
8             count += 1
9 print('count=', count)
10 EOF
11 $ python3 foo.py
```

Problem 2. Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ N=4
3 $ cat > foo.py <<EOF
4 count = 0
5 for i in range($N * 1024):
6     count += 1
7 for i in range($N):
8     for j in range($N):
9         count += 1
10    count += 1
11 for i in range($N):
12    count += 1
13 print('count=', count)
14 EOF
15 $ python3 foo.py
```

Problem 3. Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ N=4
3 $ cat > foo.py <<EOF
4 count = 0
5 for i in range($N * 1024):
6     count += 1
7 for i in range($N):
8     for j in range(i, $N):
9         count += 1
10    count += 1
11 for i in range($N):
12    count += 1
13 print('count=', count)
14 EOF
15 $ python3 foo.py
```

Problem 4. Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ N=4
3 $ cat > foo.py <<EOF
4 count = 0
5 for i in range($N * 1024):
6     count += 1
7 for i in range($N):
8     for j in range(i, $N):
9         count += 1
10    count += 1
11 for i in range(2 ** $N):
12    count += 1
13 print('count=', count)
14 EOF
15 $ python3 foo.py
```