

QUIZ 6

COMP9021 PRINCIPLES OF PROGRAMMING

```
$ python3 quiz_6.py
```

```
Enter three nonnegative integers: 0 1 3
```

```
Here is the grid that has been generated:
```

```
1 1 0
1 1 1
1 1 1
```

```
For triangles pointing N, we have:
```

```
2 triangles of size 2
```

```
For triangles pointing E, we have:
```

```
2 triangles of size 2
```

```
For triangles pointing S, we have:
```

```
1 triangle of size 2
```

```
For triangles pointing W, we have:
```

```
1 triangle of size 2
```

```
$ python3 quiz_6.py
```

```
Enter three nonnegative integers: 0 1 4
```

```
Here is the grid that has been generated:
```

```
1 1 0 1
1 1 1 1
1 0 0 1
0 0 1 0
```

```
For triangles pointing N, we have:
```

```
1 triangle of size 2
```

```
For triangles pointing E, we have:
```

```
1 triangle of size 2
```

```
For triangles pointing W, we have:
```

```
1 triangle of size 2
```

```
$ python3 quiz_6.py
```

```
Enter three nonnegative integers: 0 2 10
```

```
Here is the grid that has been generated:
```

```

1 1 0 1 1 1 1 1 1
1 0 1 0 1 0 0 1 1
1 1 0 1 0 1 0 1 1
1 0 1 1 1 1 1 0 1
1 1 1 0 1 0 0 1 1
1 1 0 1 1 1 0 1 1
0 0 1 0 0 0 1 1 0
1 1 1 0 1 1 1 1 0
1 1 0 1 1 1 1 1 0
1 1 1 0 1 0 0 0 1

```

```
For triangles pointing N, we have:
```

```
12 triangles of size 2
```

```
For triangles pointing E, we have:
```

```
11 triangles of size 2
```

```
For triangles pointing S, we have:
```

```
12 triangles of size 2
```

```
For triangles pointing W, we have:
```

```
1 triangle of size 3
```

```
11 triangles of size 2
```

```
$ python3 quiz_6.py
```

```
Enter three nonnegative integers: 0 10 6
```

```
Here is the grid that has been generated:
```

```

1 1 0 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1
1 1 1 1 1 1

```

```
For triangles pointing N, we have:
```

```
7 triangles of size 3
```

```
12 triangles of size 2
```

```
For triangles pointing E, we have:
```

```
7 triangles of size 3
```

```
12 triangles of size 2
```

```
For triangles pointing S, we have:
```

```
6 triangles of size 3
```

```
11 triangles of size 2
```

```
For triangles pointing W, we have:
```

```
7 triangles of size 3
```

```
12 triangles of size 2
```

```
$ python3 quiz_6.py
```

```
Enter three nonnegative integers: 0 8 11
```

```
Here is the grid that has been generated:
```

```

1 1 0 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 0 1 0 1 1 0 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
0 1 1 1 1 1 1 0 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 0 1 1 1 1
1 1 1 0 1 1 1 0 1 1 0

```

```
For triangles pointing N, we have:
```

```

5 triangles of size 4
20 triangles of size 3
38 triangles of size 2

```

```
For triangles pointing E, we have:
```

```

5 triangles of size 4
22 triangles of size 3
38 triangles of size 2

```

```
For triangles pointing S, we have:
```

```

3 triangles of size 5
7 triangles of size 4
20 triangles of size 3
36 triangles of size 2

```

```
For triangles pointing W, we have:
```

```

1 triangle of size 5
8 triangles of size 4
19 triangles of size 3
39 triangles of size 2

```