Quiz 3

COMP9021 Principles of Programming

2018 session 1

For clarifications on expected outputs, see Ed or program stub.

```
$ python3 quiz_3.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_3.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_3.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
    1 0 1 0 1 0 0 1 1 1
    1 1 0 1 0 1 0 1 1 1
    1 0 1 1 1 1 1 0 1 1
    1 1 1 0 1 0 0 1 1 1
    1 1 0 1 1 1 0 1 1 1
    0 0 1 0 0 0 1 1 0 0
    1 1 1 0 1 1 1 1 0 1
    1 1 0 1 1 1 1 1 0 1
    1 1 1 0 1 0 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_3.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

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_3.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
```