Coding Quiz 5

COMP9021 PRINCIPLES OF PROGRAMMING
Term 3, 2022

$ python3 quiz_5.py
Enter two integers, the second one being strictly positive: 0 1
Here is the grid that has been generated:
```
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
```
There is no parallelogram with horizontal sides.

$ python3 quiz_5.py
Enter two integers, the second one being strictly positive: 0 2
Here is the grid that has been generated:
```
1 1 0 1 1 1 1 1 1 0
0 1 0 0 1 0 1 0 0 1
1 0 1 1 1 0 1 1 1 0
0 0 1 0 1 1 0 1 0 0
0 0 0 1 0 0 1 1 0 1
1 0 1 0 1 1 0 1 1 0
1 0 0 0 0 1 1 0 0 0
0 0 0 1 1 0 0 1 1 1
1 1 0 1 0 1 1 0 0 0
1 0 0 1 0 1 1 0 0 0
```
The largest parallelogram with horizontal sides has a size of 4.

$ python3 quiz_5.py
Enter two integers, the second one being strictly positive: 0 3
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
```
The largest parallelogram with horizontal sides has a size of 12.

```
$  python3 quiz_5.py
```
Enter two integers, the second one being strictly positive: 0 4
Here is the grid that has been generated:
```
    1 1 0 1 [1 1 1] 1 1 1
    1 1 1 0 [1 1 1] 0 0 1
    1 0 1 1 [1 1 1] 1 1 0
    0 0 1 0 [1 1 1] 1 0 1
    1 1 1 1 0 0 1 1 0 1
    1 0 1 1 1 1 0 1 1 1
    1 1 1 1 0 1 1 0 0 1
    1 0 0 1 1 1 1 1 1 1
    1 1 0 1 0 1 1 1 1 0
    1 0 1 1 1 1 1 0 0 1
```
The largest parallelogram with horizontal sides has a size of [12].

```
$  python3 quiz_5.py
```
Enter two integers, the second one being strictly positive: 1 4
Here is the grid that has been generated:
```
    1 0 1 0 1 1 1 [1 1] 0
    1 0 1 1 0 1 [1 1] 0 1
    0 0 0 0 1 [1 1] 0 1 1
    1 1 1 1 [1 1] 1 0 1 0
    1 1 0 [1 1] 1 1 1 1 1
    0 1 [1 1] 1 1 1 1 0 1
    0 [1 1] 1 1 0 1 0 1 1
   [1 1] 1 0 1 1 1 1 1 1
    1 0 1 1 1 1 0 1 1 1
    1 1 1 1 1 0 1 1 0 1
```
The largest parallelogram with horizontal sides has a size of [16].

```
$  python3 quiz_5.py
```
Enter two integers, the second one being strictly positive: 0 5
Here is the grid that has been generated:
```
    1 1 0 1 1 1 1 1 1 1
    1 1 1 1 1 1 0 1 1 1
    1 1 1 0 0 1 1 1 0 1
    1 1 1 1 1 1 1 1 1 0
    1 0 0 1 0 1 [1 1 1] 1
    0 1 1 1 1 [1 1 1] 0 0
    1 1 1 0 [1 1 1] 0 1 1
    1 1 1 [1 1 1] 1 0 1 1
    1 1 [1 1 1] 1 1 0 1 1
    1 0 0 1 1 0 0 1 1 1
```
The largest parallelogram with horizontal sides has a size of [15].