Quiz 5

COMP9021 Principles of Programming

2014 session 1

Sample outputs

```
$ a.out -4 0
Here is the grid that has been generated:

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


There is no parallelogram with horizontal sides.
$ a.out 100 0
Here is the grid that has been generated:

    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 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 1 1
    1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1


The largest parallelogram with horizontal sides has a size of 100.
```

```
$ a.out 2 0
Here is the grid that has been generated:

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

The largest parallelogram with horizontal sides has a size of 6.
$ a.out 2 1
Here is the grid that has been generated:

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

The largest parallelogram with horizontal sides has a size of 8.
```

```
$ a.out 3 1
Here is the grid that has been generated:

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

The largest parallelogram with horizontal sides has a size of 10.
$ a.out 3 6
Here is the grid that has been generated:

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

The largest parallelogram with horizontal sides has a size of 16.
```