

## Quiz 3

COMP9021 Principles of Programming

2017 session 2

### Sample outputs

```
$ python quiz_3.py
Enter three nonnegative integers: 0 1 2
Here is the grid that has been generated:
```

```
1 1
0 1
```

```
$ python 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 steps of size 2, we have:

2 stairs with 1 step

```
$ python quiz_3.py
Enter three nonnegative integers: 0 3 9
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
```

For steps of size 2, we have:

5 stairs with 1 step  
1 stair with 2 steps  
1 stair with 3 steps  
1 stair with 4 steps

For steps of size 3, we have:

4 stairs with 1 step

```

$ python quiz_3.py
Enter three nonnegative integers: 0 3 7
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

```

```

For steps of size 2, we have:
  2 stairs with 1 step
  2 stairs with 2 steps

```

```

For steps of size 3, we have:
  1 stair with 2 steps

```

```

$ python quiz_3.py
Enter three nonnegative integers: 0 4 8
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

```

```

For steps of size 2, we have:
  7 stairs with 1 step
  3 stairs with 2 steps
  2 stairs with 3 steps

```

```

For steps of size 3, we have:
  2 stairs with 1 step
  1 stair with 2 steps

```

```

For steps of size 4, we have:
  1 stair with 1 step

```

```
$ python quiz_3.py
Enter three nonnegative integers: 0 5 9
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 1 0 1 0
  1 1 1 1 0 1 1 1 1
  1 1 1 1 1 1 1 0 1
  0 0 1 1 1 1 1 0 1
  1 1 1 1 1 1 0 1 1
  1 1 1 1 1 0 0 1 1
  1 0 1 1 1 1 0 1 1
```

```
For steps of size 2, we have:
  4 stairs with 1 step
  5 stairs with 2 steps
  1 stair with 3 steps
  2 stairs with 4 steps
```

```
For steps of size 3, we have:
  9 stairs with 1 step
```

```
For steps of size 4, we have:
  2 stairs with 1 step
```