

## QUIZ 2

COMP9021 PRINCIPLES OF PROGRAMMING

### SAMPLE OUTPUTS

```
$ python3
...
>>> from quiz_2 import *
>>> encode(0, 0)
0
>>> encode(1, 0)
1
>>> encode(1, 1)
2
>>> encode(0, 1)
3
>>> encode(-1, 1)
4
>>> encode(-1, 0)
5
>>> encode(-1, -1)
6
>>> encode(0, -1)
7
>>> encode(1, -1)
8
>>> encode(2, -1)
9
>>> encode(2, 0)
10
>>> encode(2, 1)
11
>>> encode(2, 2)
12
>>> encode(1, 2)
13
>>> encode(0, 2)
14
>>> encode(4, -2)
50
```

```
>>> decode(0)
(0, 0)
>>> decode(1)
(1, 0)
>>> decode(2)
(1, 1)
>>> decode(3)
(0, 1)
>>> decode(4)
(-1, 1)
>>> decode(5)
(-1, 0)
>>> decode(6)
(-1, -1)
>>> decode(7)
(0, -1)
>>> decode(8)
(1, -1)
>>> decode(9)
(2, -1)
>>> encode(10)
(2, 0)
>>> encode(11)
(2, 1)
>>> encode(12)
(2, 2)
>>> encode(13)
(1, 2)
>>> encode(14)
(0, 2)
>>> decode(50)
(4, -2)
```