

## QUIZ 5

### COMP9021 PRINCIPLES OF PROGRAMMING

```
$ python3 quiz_5.py
Input a nonnegative integer: 0
The encoded set is: {}
The derived set is encoded as: 0
It is: {}
$ python3 quiz_5.py
Input a nonnegative integer: 1
The encoded set is: {0}
The derived set is encoded as: 1
It is: {0}
$ python3 quiz_5.py
Input a nonnegative integer: 2
The encoded set is: {-1}
The derived set is encoded as: 2
It is: {-1}
$ python3 quiz_5.py
Input a nonnegative integer: 3
The encoded set is: {-1, 0}
The derived set is encoded as: 2
It is: {-1}
$ python3 quiz_5.py
Input a nonnegative integer: 4
The encoded set is: {1}
The derived set is encoded as: 4
It is: {1}
$ python3 quiz_5.py
Input a nonnegative integer: 5
The encoded set is: {0, 1}
The derived set is encoded as: 5
It is: {0, 1}
$ python3 quiz_5.py
Input a nonnegative integer: 6
The encoded set is: {-1, 1}
The derived set is encoded as: 3
It is: {-1, 0}
$ python3 quiz_5.py
Input a nonnegative integer: 7
The encoded set is: {-1, 0, 1}
The derived set is encoded as: 3
It is: {-1, 0}
```

```
$ python3 quiz_5.py
Input a nonnegative integer: 100
The encoded set is: {-3, 1, 3}
The derived set is encoded as: 44
It is: {-3, -2, 1}
$ python3 quiz_5.py
Input a nonnegative integer: 123
The encoded set is: {-3, -2, -1, 0, 2, 3}
The derived set is encoded as: 2722
It is: {-6, -5, -4, -3, -1}
$ python3 quiz_5.py
Input a nonnegative integer: 1234
The encoded set is: {-4, -1, 2, 3, 5}
The derived set is encoded as: 1697
It is: {-5, -4, -3, 0, 5}
```