1st Midterm Exam

2024.04.16 (Tuesday) 8:10 – 9:00

1. Please write a program with nested while loops (e.g., while in while in while) to generate and print a 9×9 multiplication table in a particular order, **as exactly shown in the below figure.** Note that if you totally use print( ) (i.e., without using while loops) to generate the multiplication table, you will get only 1%. (100%)

```
9 x 9 = 81      9 x 8 = 72      9 x 7 = 63
8 x 9 = 72      8 x 8 = 64      8 x 7 = 56
7 x 9 = 63      7 x 8 = 56      7 x 7 = 49
6 x 9 = 54      6 x 8 = 48      6 x 7 = 42
5 x 9 = 45      5 x 8 = 40      5 x 7 = 35
4 x 9 = 36      4 x 8 = 32      4 x 7 = 28
3 x 9 = 27      3 x 8 = 24      3 x 7 = 21
2 x 9 = 18      2 x 8 = 16      2 x 7 = 14
1 x 9 = 9       1 x 8 = 8       1 x 7 = 7

9 x 6 = 54      9 x 5 = 45      9 x 4 = 36
8 x 6 = 48      8 x 5 = 40      8 x 4 = 32
7 x 6 = 42      7 x 5 = 35      7 x 4 = 28
6 x 6 = 36      6 x 5 = 30      6 x 4 = 24
5 x 6 = 30      5 x 5 = 25      5 x 4 = 20
4 x 6 = 24      4 x 5 = 20      4 x 4 = 16
3 x 6 = 18      3 x 5 = 15      3 x 4 = 12
2 x 6 = 12      2 x 5 = 10      2 x 4 = 8
1 x 6 = 6       1 x 5 = 5       1 x 4 = 4

9 x 3 = 27      9 x 2 = 18      9 x 1 = 9
8 x 3 = 24      8 x 2 = 16      8 x 1 = 8
7 x 3 = 21      7 x 2 = 14      7 x 1 = 7
6 x 3 = 18      6 x 2 = 12      6 x 1 = 6
5 x 3 = 15      5 x 2 = 10      5 x 1 = 5
4 x 3 = 12      4 x 2 = 8       4 x 1 = 4
3 x 3 = 9       3 x 2 = 6       3 x 1 = 3
2 x 3 = 6       2 x 2 = 4       2 x 1 = 2
1 x 3 = 3       1 x 2 = 2       1 x 1 = 1
```

Upload your file to Moodle:

Filename: studentID_midterm1.py (e.g. A1234567_midterm1.py)

Note: You need to write comments(註解) for each part in your code.