

School of Science and Technology Secondary 3 Computing  
April Timed Quiz (30 minutes)

You are required to complete Q1 within the 30mins. If you have extra time, you may attempt the bonus question.

Q1. Grading System

Traditional School of Superstition (TSS) uses the following for as their grading system.

Marks (0 to 100)	Grades
Above 89	High Distinction
75 to 89	Distinction
60 to 74	Credit
40 to 59	Passed
Less than 40	Fail

Write a program that do the following:

1. Read in marks
2. If mark is positive, do any necessary processing, then go to step 1. again
3. If mark is negative, print out the follow:
  - a. Total number of students in each Grades
  - b. The percentage of students of that Grade.

[10]

Example of the program may look like this

```
Enter marks (negative value to quit) : 76
Enter marks (negative value to quit) : 77
Enter marks (negative value to quit) : 95
Enter marks (negative value to quit) : 35
Enter marks (negative value to quit) : 40
Enter marks (negative value to quit) : -1
```

```
High Distinction    : 1 (20%)
Distinction         : 2 (40%)
Credit              : 0 (0%)
Passed              : 1 (20%)
Fail                : 1 (20%)
```

Save your program as Q1\_class\_index.py, where class is 301, 302, 307 (numbers only) and index should have a leading zero if it is a singular digit.

Example:

```
Q1_301_02.py
Q1_307_23.py
```

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Bonus Question: Unlucky 4

TSS thinks that the number 4 is unlucky, therefore for student index number, any number with a 4 digit is skipped and the next number is used instead.

Therefore, the student in the 4<sup>th</sup> position of the name list has an index number of 5 instead.

Write a program that take in the number of students, N.  
Print out all the possible index numbers in ascending order.

[Cookies]

Example of the program may look like this

Number of students : 24

All possible indexes are

1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27

Save your program as Q2\_class\_index.py, where class is 301, 302,307 (numbers only) and index should have a leading zero if it is a singular digit.

Example:

Q2\_301\_07.py

Q2\_302\_12.py

===== End of Timed Quiz =====