MATH 4332

Assignment# 6

Due : 10/13/2023, Friday, before 11:59pm Term `:Fall 2023`

Important Note: Please use only materials covered in this class so far to solve your problems. You will be given zero if the materials used are not yet covered.

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1. Write a simple quiz game that has a list of five questions and a list of answers to those questions. The game should give the player three randomly selected questions to answer. It should ask the questions one-by-one, and tell the player whether they got the question right or wrong. At the end it should print out how many out of three they got right.

2. Write a program that gets a string of telephone number from the user. The program should print Valid if it decides the phone number is a real phone number, and Invalid otherwise. A phone number is considered valid as long as it is written in the form `abc-def-hijk` or `1-abc-def-hijk`. The dashes must be included, the phone number should contain only numbers and dashes, and the number of digits in each group must be correct. Test your program with the output shown below.

```
Enter a phone number: 1-301-447-5820
Valid
Enter a phone number: 301-447-5820
Valid
Enter a phone number: 301-4477-5820
Invalid
Enter a phone number: 3X1-447-5820
Invalid
Enter a phone number: 3014475820
Invalid
```

3. Use a list comprehension to create the list below, which consists of ones separated by increasingly many zeroes. The last two ones in the list should be separated by ten zeroes.
`[1,1,0,1,0,0,1,0,0,0,1,0,0,0,0,1,....]`