

# EGR-101 Intro Computing Engineers

Due: 13 September 2021 at the start of class

## Question 1 (10 Points)

Write a well-documented Python Program *hmkw2Q1.py* that accepts three distinct digits from a user and prints all possible combinations from the digits. Use three (3) for-loops in your solution.

Grading 2 points for the well-documented program submitted to *hmkw2Q1.py*. 8 points for a correct solution using three for-loops.

## Question 2 (10 Points)

Write a well-documented Python Program *hmkw2Q2.py* that accepts as an integer from a user and tabulates the sum from the first N integers. Make sure your program has a display similar to the one provided below.

```
this program adds up the first n digits
Enter a number: 34
1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 17 + 18 + 19
+ 20 + 21 + 22 + 23 + 24 + 25 + 26 + 27 + 28 + 29 + 30 + 31 + 32 + 33 + 34 = 595
```

Grading 2 points for the well-documented program submitted to *hmkw2Q2.py*. 8 points for a correct solution using three for-loops.

## Question 3 (10 Points)

Write a well-documented Python Program *hmkw2Q3.py* that asks the user for a number N. The program tabulates the sum of the series  $1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{N}$ . Your program should use a for-loop.

Grading 2 points for the well-documented program submitted to *hmkw2Q3.py*. 8 points for a correct solution.

## Question 4 (10 Points)

Write a well-documented Python Program *hmkw2Q4.py* that takes a dictionary and multiplies all the items in the dictionary. The dictionary in your program is `d={'A': 70,'B':14,'C':23}`.

Grading 2 points for the well-documented program submitted to *hmkw1Q4.py*. 8 points for a correct solution.

## Question 5 (10 Points)

Write a well-documented Python Program *hmkw2Q5.py* that takes a string and replaces every blank space with a hyphen. The program should ask a user for a string before the hyphen replacement.

Grading 2 points for the well-documented program submitted to *hmkw2Q5.py*. 8 points for a correct solution.