

## CS112: Programming & Data Structure Laboratory

Date: 19 April 2022

### 3rd Assignment

Submission deadline: Today 16.55pm

1. Take an integer input from user and using loop (any loop construct is ok) compute the reverse number and display it. For example if the input taken from user is 3045 then the reverse number that needs to be displayed is 5403.

[2]

Upload 3\_1.c

2. Write a C program which will print an inverted pyramid made with \*. It will read an integer n from user which will be the number of \* at the starting line (pyramid base).

```
Enter value of n
9
* * * * *
  * * * *
    * * *
      * *
        *
          *
```

```
Enter value of n
8
* * * * *
  * * * *
    * * *
      * *
        *
```

Upload 3\_2.c

[4]

3. Sin(x) can be expanded as follows  
 $\sin(x) = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \dots$

Note that **input degree** must be converted to radian before you apply above series.

Consider up to the term when **absolute** value of a term is more than a threshold. Take input threshold from user. Note: Assume value of Pi as 3.14.

[4]

Upload 3\_3.c

