



NATIONAL UNIVERSITY  
OF COMPUTER & EMERGING SCIENCES  
PESHAWAR CAMPUS



# ASSIGNMNET-1

## INSTRUCTIONS:

Please keep in mind the following:

- Do not share your code with anyone else. All assignments are to be done individually.
- You must be able to explain any part of your submitted code.
- You must submit the **.cpp** files only. Make sure you name as rollno\_name\_dept\_sec.cpp

For example: **P22\_1234\_Name\_AI\_1A**

- Make sure you follow the naming schemes of the **.cpp** files correctly. Failure to do so will result in getting **ZERO**.
- No submissions other than **Classroom/Slate** will be entertained.
- Make sure your code compiles and runs. If a piece of code fails to compile, you'll be given a **ZERO**.
- All submissions will be checked for plagiarism. You are not allowed to copy code from the internet or any other individual.
- Any sort of plagiarism will lead to **ZERO**.
- **DO NOT MODIFY FILE, JUST WRITE YOUR CODE IN DESIRED AREA.**
- RENAME task.cpp according to this schema **P22\_1234\_Name\_AI\_1A**

## STATEMENT

Suppose you are working in some courier company let's say TCS. Your company delivers packages in boxes. Some boxes are used for packing. And then there are boxes which are used for delivering Packed boxes. For convenience, we call packing boxes packages and other one Box. Packages are put inside the box. The problem is we have different package sizes and Box sizes. We can identify the box and package size using their dimension. Length, Width, and Height

### Tasks:

1. You are given Dimensions of Packages and Box identified as `pack_height`, `pack_width`, `pack_length` and `box_height`, `box_width`, `box_length` respectively. You must find out whether these packages can fit inside the box such that no empty space is left. If they can fit perfectly, your program should output 'Y', otherwise 'n'
2. Now you know whether Packages can fit inside the box perfectly or not. You are again given dimension of both same as above. You have to find out how many packages can fit inside the box. If packages can't be fit perfectly, your program should output 0, otherwise number of packages that can be fit inside the box.

Hint is at the bottom of page.

**Hint:** Try to do yourself, do some simple math's and do not break math's rules.