

Department of Mechanical Engineering
Indian Institute of Technology Kanpur
ME685A: Home Assignment 1

Due: on or before August 14, 2021

This assignment must be your own work. Taking help from others or helping others are not allowed.

Consider two matrices **A** and **B**. We wish to find the matrix **C**, such that **C** = **AB**

1. Write the pseudocode (step by step algorithm).
2. Write a computer program for the same.
3. Use the program to find \mathbf{A}^2 , \mathbf{A}^3 , and \mathbf{A}^4 where

$$\mathbf{A} = \begin{bmatrix} 2 & -2 & -4 \\ -1 & 3 & 4 \\ 1 & -2 & -3 \end{bmatrix}$$

Write your name and roll no at the top of each page. Also write your name and roll no in the computer program (duly commented). Put all documents in a folder. Name the folder as < name > _ < roll > _ < hw1 >. Zip the folder and upload in MooKit.