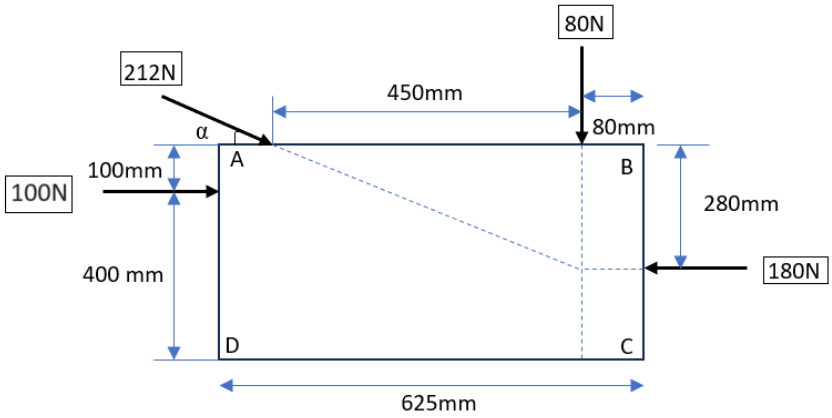
Maulana Azad National Institute of Technology, Bhopal
Department of Civil Engineering

Engineering Mechanics (CE109)

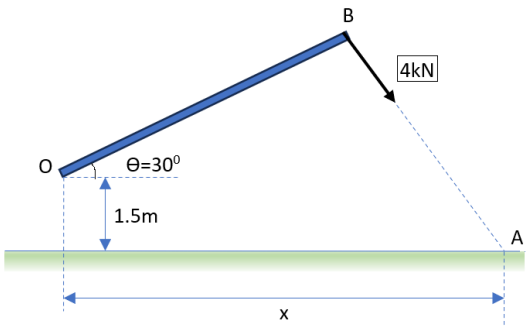
Sessional Sheet I

QUES-1. A rectangular block is subjected to forces as shown below-

a) Determine resultant of applied Forces.
b) Locate the two points where line of action of resultant intersects the edge of the block.



Ques-2 For the given force find distance x so that its moment about O is maximum.



QUES-3. A string of length L is fastened to point A and B at the same level at a distance apart. A ring of weight W can slide on the string and a horizontal force P is applied to it such that it is in equilibrium vertical below B.

Show that P=W*a/l; and that the tension in the string. $W(L^2+a^2)/2l$.

Subject Coordinator: Dr. Priyanka Dhurvey