

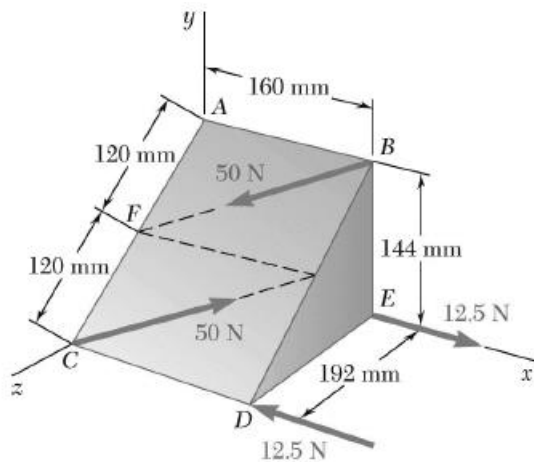
ES221 ENGINEERING MECHANICS I

Additional Problems- Set V

Due Date: 17.11.2020

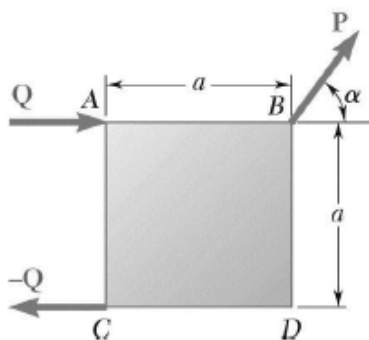
Q1) (33 pts)

Replace the two couples shown with a single equivalent couple, specifying its magnitude and the direction of its axis.



Q2) (33 pts)

The force and couple shown are to be replaced by an equivalent single force. Knowing that $P=2Q$, determine the required value of α if the line of action of the single equivalent force is to pass through point C.



Q3) (34 pts)

The beam supports the distributed load as shown. Find the equivalent force and its location from point A.

