

## Sheet (2)

### Riveted Joints

- 1) The bracket as shown in Fig.1 is to carry a load of 45 kN. Determine the diameter of the rivet if the shear stress is not to exceed 40 MPa. Assume all rivets of the same size.

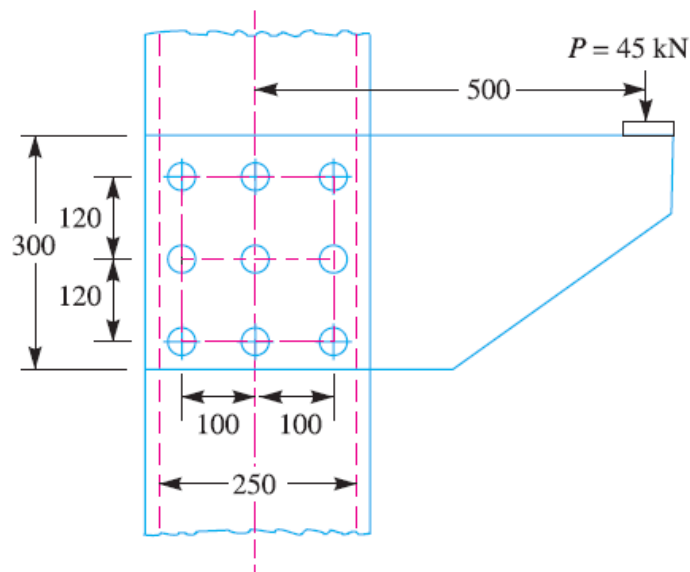


Fig.1

- 2) Find the value of  $P$  for the joint shown in Fig.2 based on a working stress of 100 MPa for the rivets. The four rivets are equal, each of 20 mm diameter.

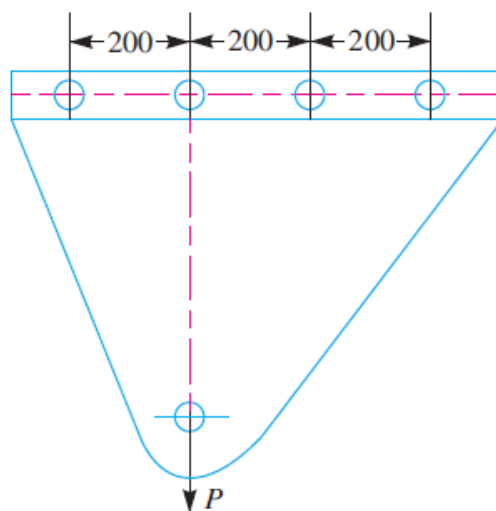


Fig.2

- 3) A bracket is riveted to a column by 6 rivets of equal size as shown in Fig.3. It carries a load of 60 kN at a distance of 200 mm from the center of the column. If the maximum shear stress in the rivet is limited to 150 MPa, determine the diameter of the rivet.

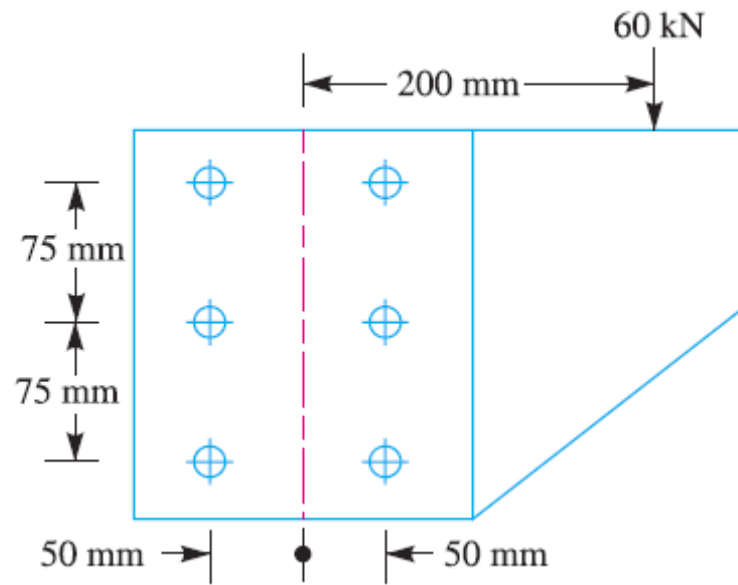


Fig.3