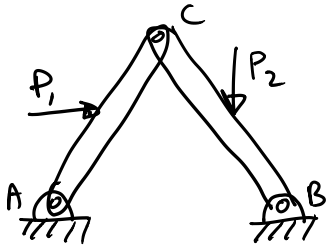
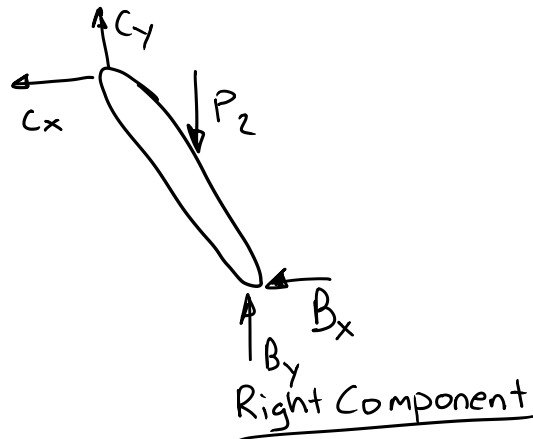
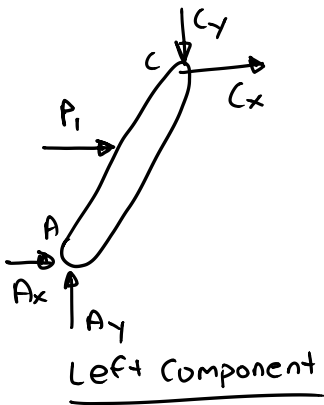
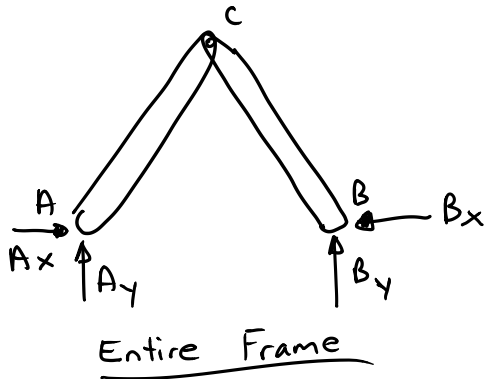


6.4) Frames

- Multi-force members
- Can be pin connected
- Unlike trusses, forces can be applied along the length of the member (No longer have two-force members)
- Break up the frame into components



Free-Body Diagrams



ENGR 2241 – Statics
Section 6: Structural Analysis

Equilibrium

- Can select as many FBD's as you have components in the frame
- Two components (members AC and BC): Can select 2 FBD's

Unknowns: $A_x, A_y, B_x, B_y, C_x, C_y$ (6)

Equilibrium Equations: $(\sum F_x = 0, \sum F_y = 0, \sum M = 0) \times 2$ (6)