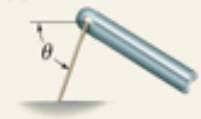
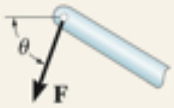
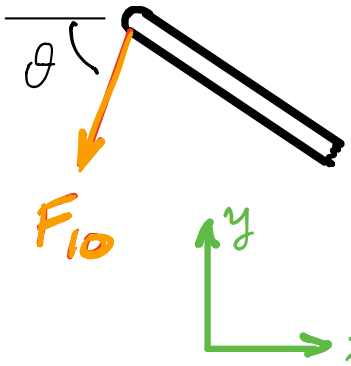
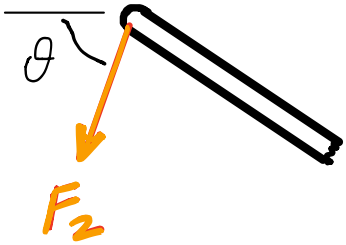
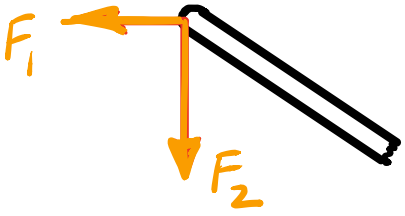
Types of Connection	Reaction	Number of Unknowns
(1)  cable		One unknown. The reaction is a tension force which acts away from the member in the direction of the cable.

TENSION FORCE IN FLEXIBLE CABLE





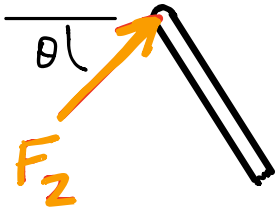


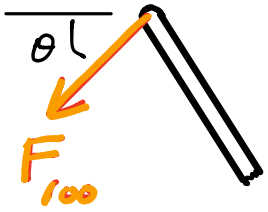
$$\tan\theta = F_2 / F_1$$

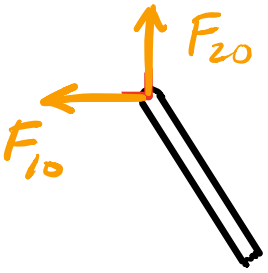
$$F_2 = F_1 \cdot \tan\theta$$

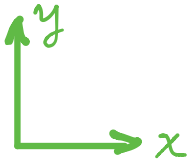
Types of Connection	Reaction	Number of Unknowns
(2)  weightless link		One unknown. The reaction is a force which acts along the axis of the link.

TENSION OR COMPRESSION IN THE FLEXIBLE LINK.









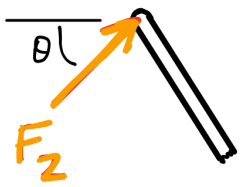
$$\tan\theta = F_{20} / F_{10}$$

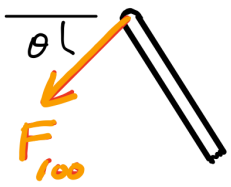
$$F_{20} = F_{10} \tan\theta$$

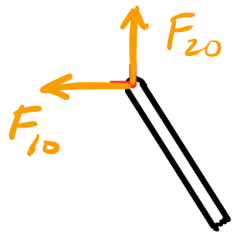
SPRING - TRANSLATIONAL

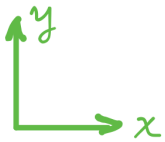
Types of Connection	Reaction	Number of Unknowns
(2)  weightless link	 or 	One unknown. The reaction is a force which acts along the axis of the spring.

TENSION OR COMPRESSION IN THE SPRING.







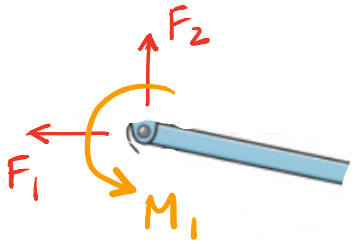


$$\tan\theta = F_{20}/F_{10}$$

$$F_{20} = F_{10}\tan\theta$$

$F = k \cdot \text{stretch}$

SPRING - ROTATIONAL



ONE UNKNOWN. THE ROTATIONAL REACTION FORCE IS THE MOMENT INSIDE THE SPRING.

$M = k_\theta \cdot \text{STRETCH}$