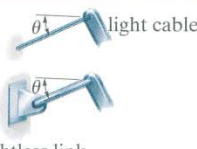

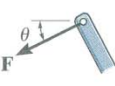


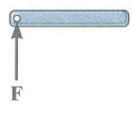


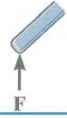




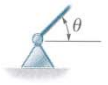
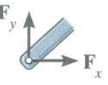


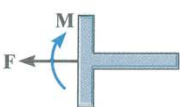


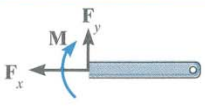
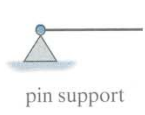


**SUPPORTS and CONNECTIONS**

TABLE 2-1 • Supports for Coplanar Structures			
Type of Connection	Idealized Symbol	Reaction	Number of Unknowns
(1)  light cable weightless link			One unknown. The reaction is a force that acts in the direction of the cable or link.
(2)  rollers rocker			One unknown. The reaction is a force that acts perpendicular to the surface at the point of contact.
(3)  smooth contacting surface			One unknown. The reaction is a force that acts perpendicular to the surface at the point of contact.
(4)  smooth pin-connected collar			One unknown. The reaction is a force that acts perpendicular to the surface at the point of contact.
(5)  smooth pin or hinge			Two unknowns. The reactions are two force components.
(6)  slider fixed-connected collar			Two unknowns. The reactions are a force and a moment.
(7)  fixed support			Three unknowns. The reactions are the moment and the two force components.

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pin support



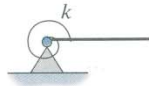
pin-connected joint



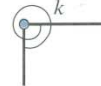
fixed support



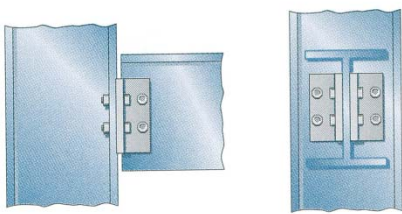
fixed-connected joint



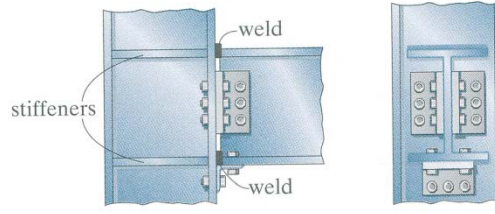
torsional spring support



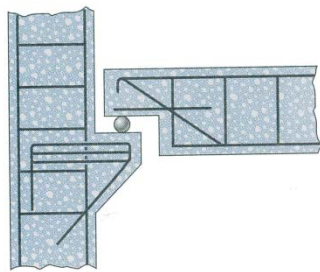
torsional spring joint



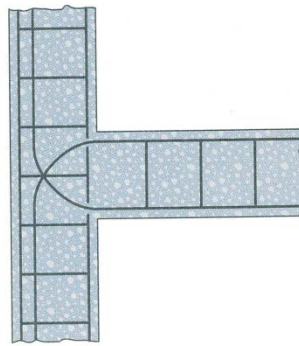
typical "pin-supported" connection (metal)



typical "fixed-supported" connection (metal)



typical "roller-supported" connection (concrete)



typical "fixed-supported" connection (concrete)

**TABLE 3-1 • Supports and Their Reactive Force Components**

