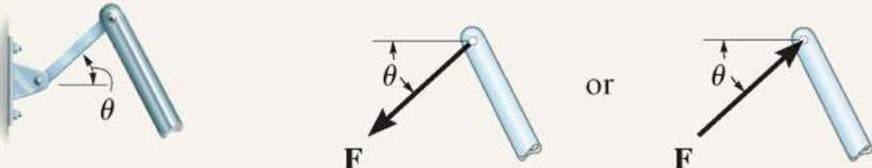
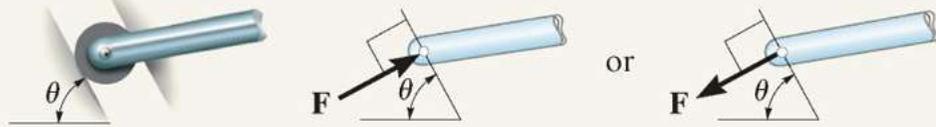
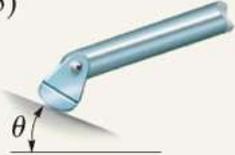
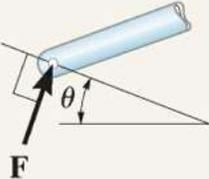
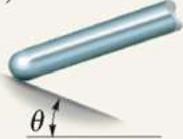
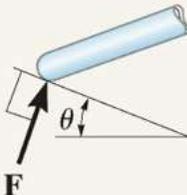
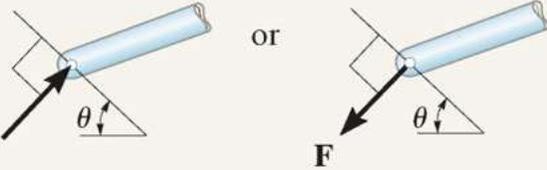


TABLE 5-1 Supports for Rigid Bodies Subjected to Two-Dimensional Force Systems

Types of Connection	Reaction	Number of Unknowns
<p>(1)</p>  <p>cable</p>	<p>One unknown. The reaction is a tension force which acts away from the member in the direction of the cable.</p>	
<p>(2)</p>  <p>weightless link</p>	<p>One unknown. The reaction is a force which acts along the axis of the link.</p>	
<p>(3)</p>  <p>roller</p>	<p>One unknown. The reaction is a force which acts perpendicular to the surface at the point of contact.</p>	
<p>(4)</p>  <p>roller or pin in confined smooth slot</p>	<p>One unknown. The reaction is a force which acts perpendicular to the slot.</p>	

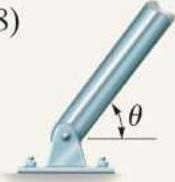
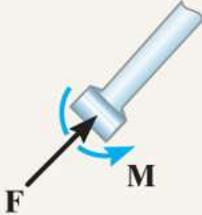
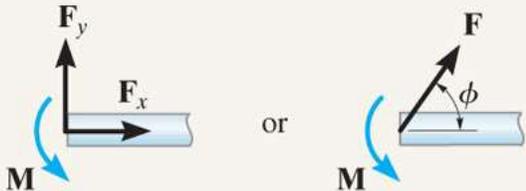
continued

TABLE 5-1 Continued

Types of Connection	Reaction	Number of Unknowns
<p>(5)</p>  <p>rocker</p>		<p>One unknown. The reaction is a force which acts perpendicular to the surface at the point of contact.</p>
<p>(6)</p>  <p>smooth contacting surface</p>		<p>One unknown. The reaction is a force which acts perpendicular to the surface at the point of contact.</p>
<p>(7)</p>  <p>member pin connected to collar on smooth rod</p>		<p>One unknown. The reaction is a force which acts perpendicular to the rod.</p>

continued

TABLE 5-1 Continued

Types of Connection	Reaction	Number of Unknowns
<p>(8) </p> <p>smooth pin or hinge</p>		<p>Two unknowns. The reactions are two components of force, or the magnitude and direction ϕ of the resultant force. Note that ϕ and θ are not necessarily equal [usually not, unless the rod shown is a link as in (2)].</p>
<p>(9) </p> <p>member fixed connected to collar on smooth rod</p>		<p>Two unknowns. The reactions are the couple moment and the force which acts perpendicular to the rod.</p>
<p>(10) </p> <p>fixed support</p>		<p>Three unknowns. The reactions are the couple moment and the two force components, or the couple moment and the magnitude and direction ϕ of the resultant force.</p>