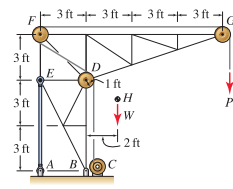
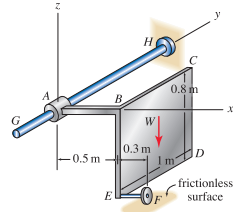


Consider the structure from Example 5.8 on p. 282, shown again here where W is the weight of the structure with center of gravity at point H .

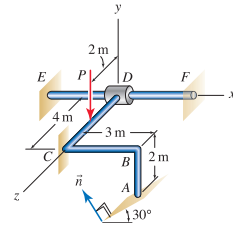
- If $W = 2$ kip, determine the support reactions due to the weight of the structure only (i.e., $P = 0$).
- Use superposition of the results from Part (a) and Example 5.8 to determine the total values of the support reactions when $W = 2$ kip and $P = 3$ kip.
- Use superposition of the results from Part (a) and Example 5.8 to determine the total values of the support reactions when $W = 1.8$ kip and $P = 4$ kip.



Object $ABCDEF$ is a sliding door that is supported by a frictionless bearing at A and a wheel at F that rests on a frictionless horizontal surface. The object has weight $W = 800$ N, which acts at the midpoint of the rectangular region $BCDE$. Determine all support reactions.



Structure $ABCD$ is supported by a collar at D that can rotate and slide along bar EF which is fixed and is frictionless. Structure $ABCD$ makes contact with smooth surfaces at A and C where the normal direction \vec{n} to the surface at A lies in a plane that is parallel to the xy plane. Force P is parallel to the y axis. If $P = 10$ kN, determine the reactions at A , C , and D .



A bracket is supported by a loose-fitting pair of rollers at points A and B , and another loose-fitting pair at C and D , and a frictionless pin at F . The forces at E and G are horizontal and vertical, respectively. Determine the reactions at the pin and each of the four rollers.

