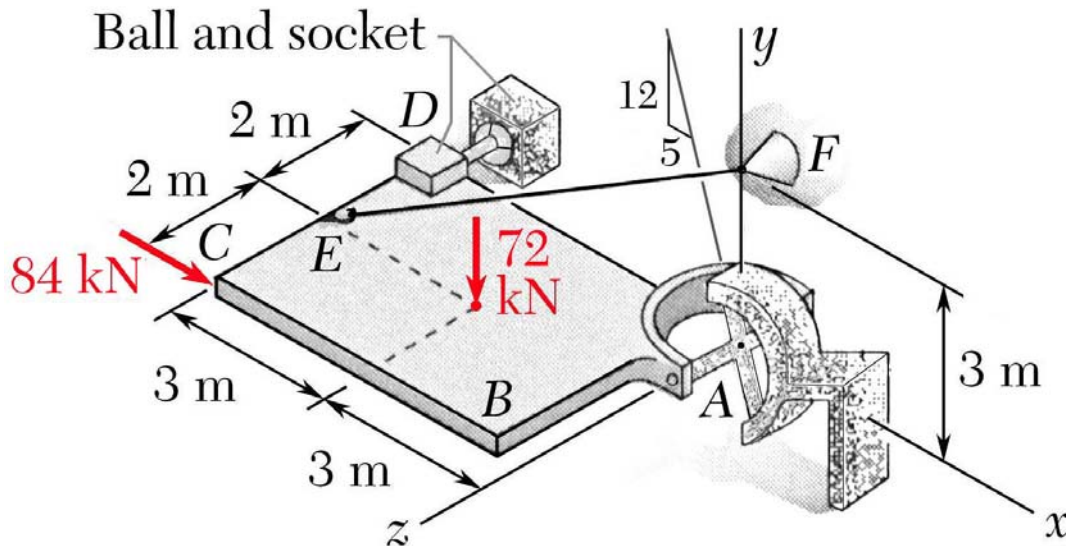


MEEG 2003 Quiz #5.m14

For the rigid body carrying loads as shown, determine (a) the tension T_{EF} in the cable EF , (b) the reaction force \mathbf{A} and reaction moment \mathbf{M}_A at support A , (c) the reaction force \mathbf{D} at support D .



FBD

(a) $T_{EF} = 84 \text{ kN}$

(b) $\mathbf{A} = -156 \mathbf{i} + 36 \mathbf{j} + 75 \mathbf{k} \text{ kN}$

$\mathbf{M}_A = -72 \mathbf{i} - 30 \mathbf{j} \text{ kN}\cdot\text{m}$

(c) $\mathbf{D} = -51 \mathbf{k} \text{ kN}$

②

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