Chapter 4. Systems of Forces and Moments

Section 4.1. Two Dimensional Description of the Moment

Definition. Consider a force $\vec{F}$ applied at a point P. The *magnitude of the moment* of force $\vec{F}$ about point P is $D|\vec{F}| = DF$ where D is the perpendicular distance from P to the line of action of $\vec{F}$.

Note. If an object has a nonzero moment about some point, then the object will rotate about that point. Therefore in a statics problem, moments about all points must sum to 0.

Note. Moments which produce counterclockwise rotations are positive and those which produce clockwise rotations are negative.

Example. Page 136 Number 4.29.

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