



A fixed beam experiences a force \vec{F} with magnitude F . Find the magnitude of the moment of this force about the point O , as well as the direction of the moment.

Assuming positive moments are counterclockwise:

$$M_O = d_1 \cdot F \sin(\theta_1 + \theta_2) + d_2 \cdot F \cos(\theta_1 + \theta_2)$$

Since M_O is positive, $|M_O| = M_O$ and the direction is **counterclockwise**