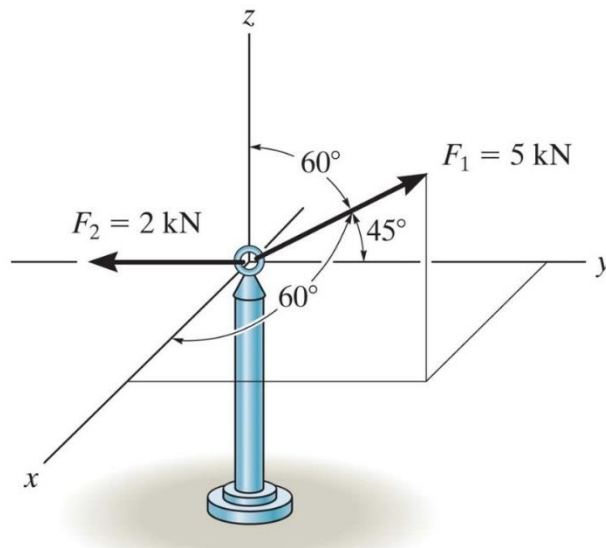



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The cables are attached to the screw eye and are subjected to their respective forces. Express the forces in Cartesian vector form and find their magnitudes. Also, find the coordinate direction angles for the resultant force.

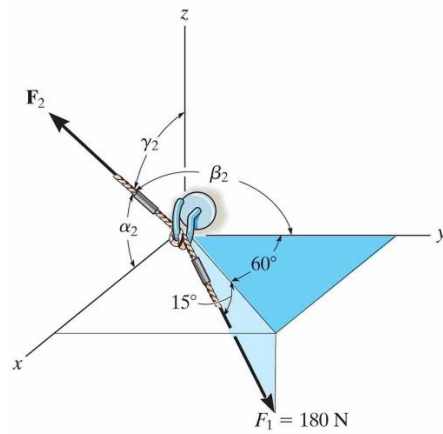
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Express each force in Cartesian vector form. Determine the magnitude of the resultant vector and its coordinate direction angles.

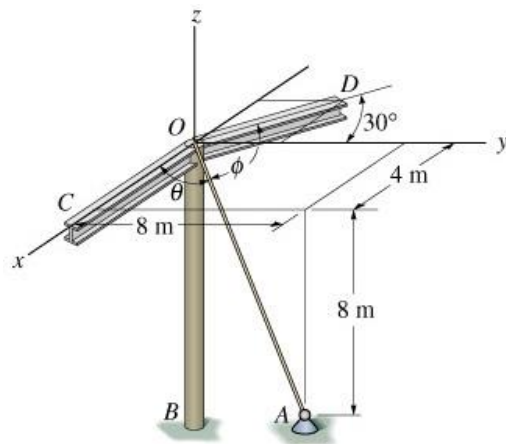
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Determine the magnitude and coordinate direction angles of  $F_2$  so that the resultant of the two forces acts along the positive  $x$  axis and has a magnitude of  $500 \text{ N}$ .

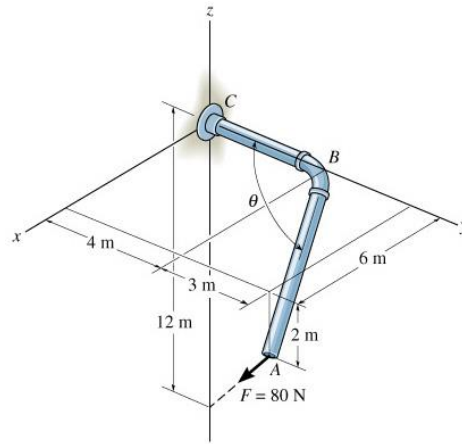
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Cable  $OA$  is used to support the column  $OB$ . Determine the angle it makes with the beam  $OC$  ( $\theta$ ).

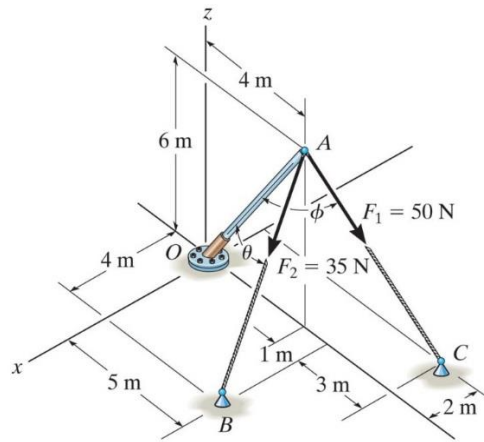
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Determine the projected component of the force acting along the axis AB of the pipe.

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The two cables exert the forces shown on the pole. Determine the magnitude of the projected component of each force acting along the axis  $AO$  of the pole.

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