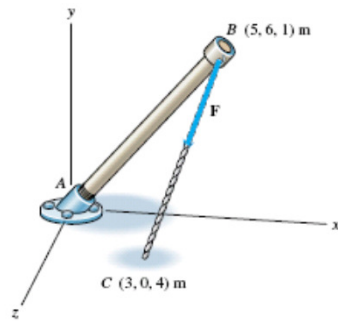


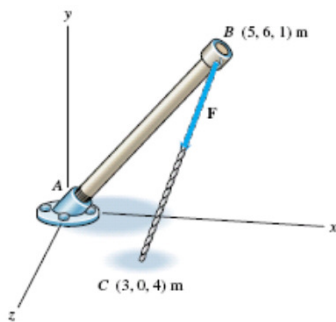
### Review (Pos Vector)



The tension in cable BC is of magnitude  $F = 400$  N.

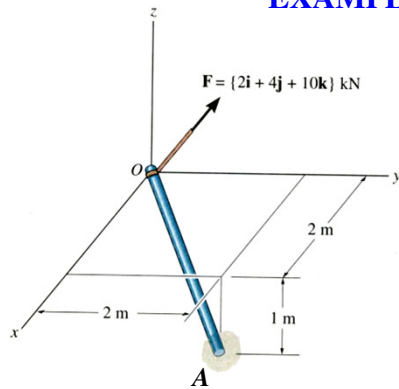
- Derive the unit vector for  $F$
- Express  $F$  as a Cartesian vector

### Example 2.



- Find the component of  $F$  parallel to  $AB$
- Perpendicular to  $AB$
- Find the angle between  $AB$  and  $F$

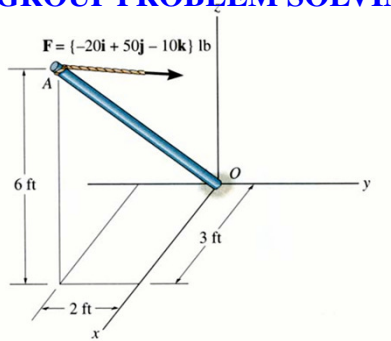
**EXAMPLE** **Given:** The force acting on the pole



**Find:** The angle between the force vector and the pole, and the magnitude of the projection of the force along the pole  $OA$ .



**GROUP PROBLEM SOLVING** **Given:** The force acting on the pole.



**Find:** The angle between the force vector and the pole, and the magnitude of the projection of the force along the pole  $AO$ .

