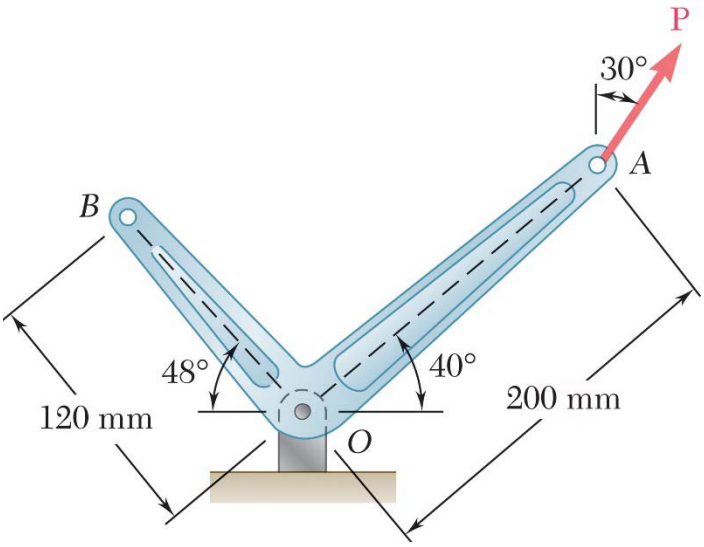
A 400-N force **P** is applied at point *A* of the bell crank shown.

a) Compute the moment of the force **P** about *O* by resolving it into components along line *OA* and in a direction perpendicular to that line.

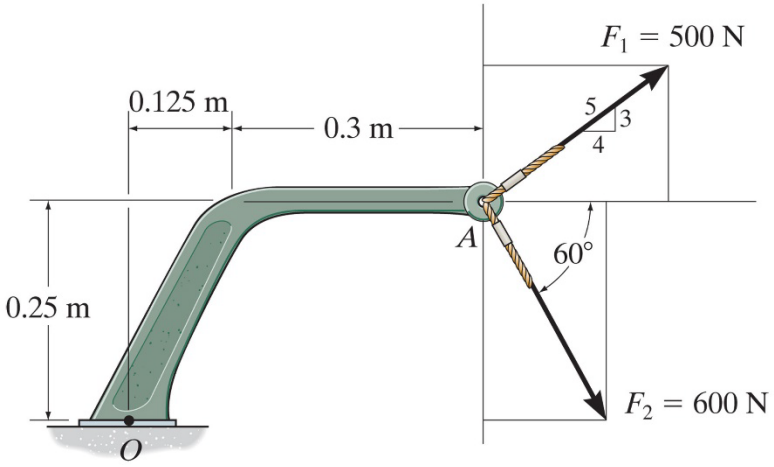
b) Determine the magnitude and direction of the smallest force **Q** applied at *B* that has the same moment as **P** about *O*.



Determine the resultant moment produced by the forces about point *O*.

a) Use the rectangular component approach

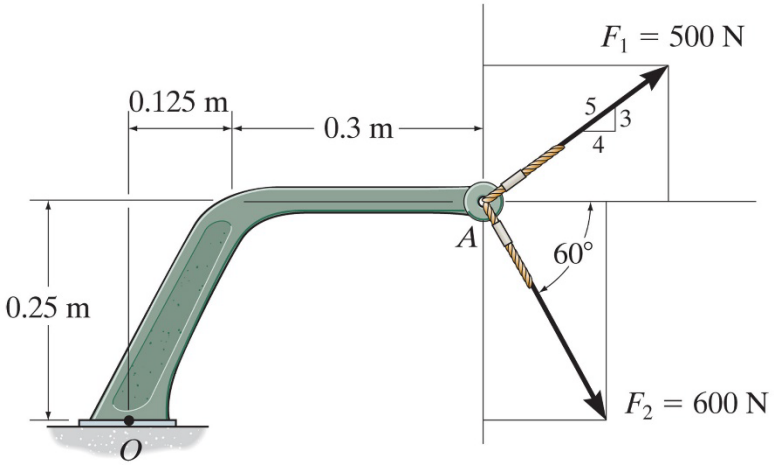
b) Find *d* using trigonometry



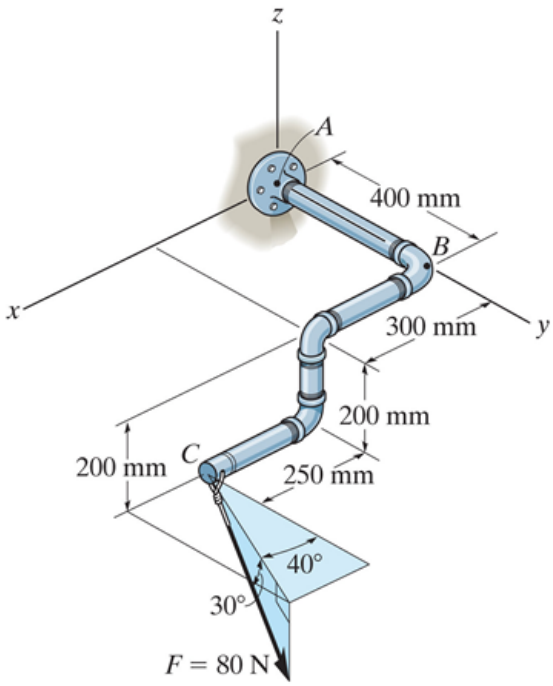
Determine the resultant moment produced by the forces about point *O*.

a) Use the rectangular component approach

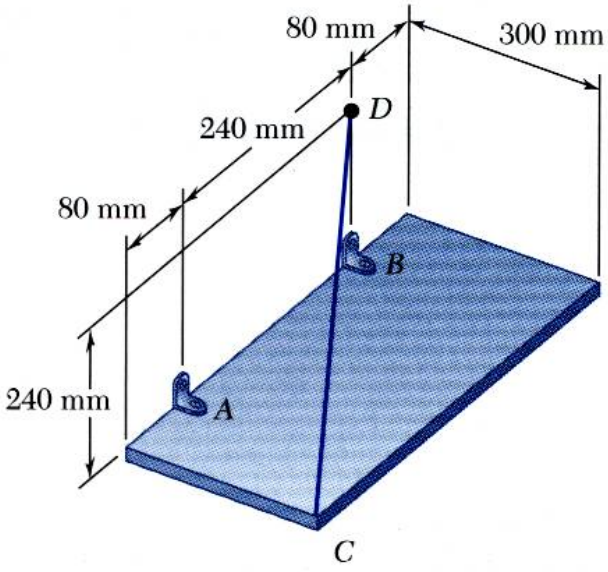
b) Find *d* using trigonometry



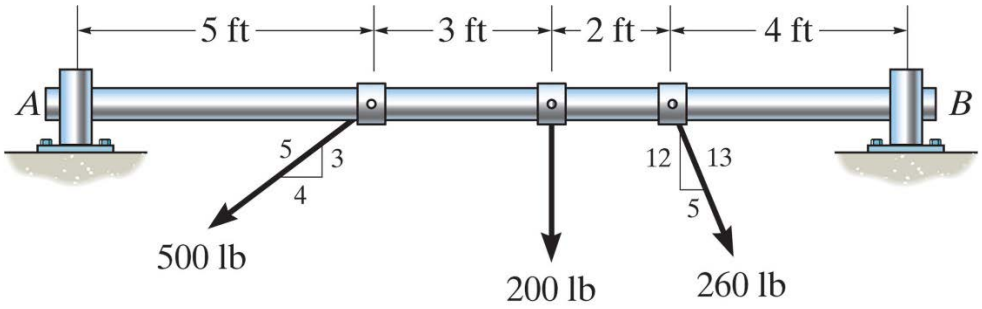
The pipe assembly is subjected to a force **F** of magnitude 80N. Determine the moment of this force about point *A*.



The rectangular plate is supported by the brackets at *A* and *B* and by a wire CD. Knowing that the tension in the wire is 200 N, determine the moment about *A* of the force exerted by the wire at *C*.



Replace the three forces acting on the shaft by a single resultant force. Determine the position using both points *A* and *B* as reference.



Replace the three forces acting on the plate by a wrench. Specify the location where the wrench intersects the *x*-*y* plane.