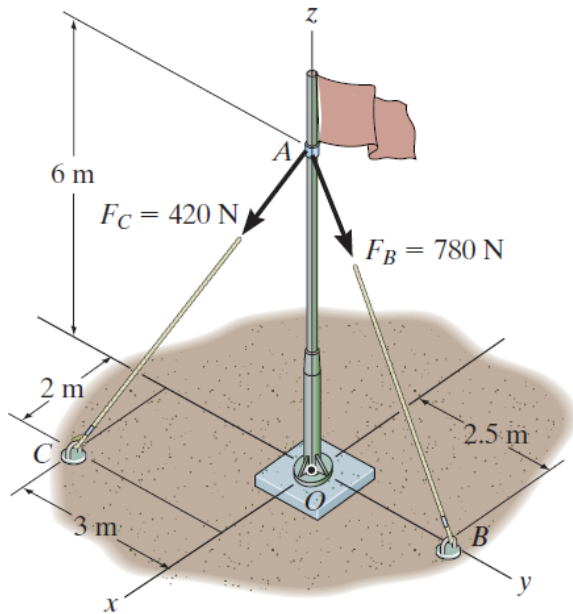
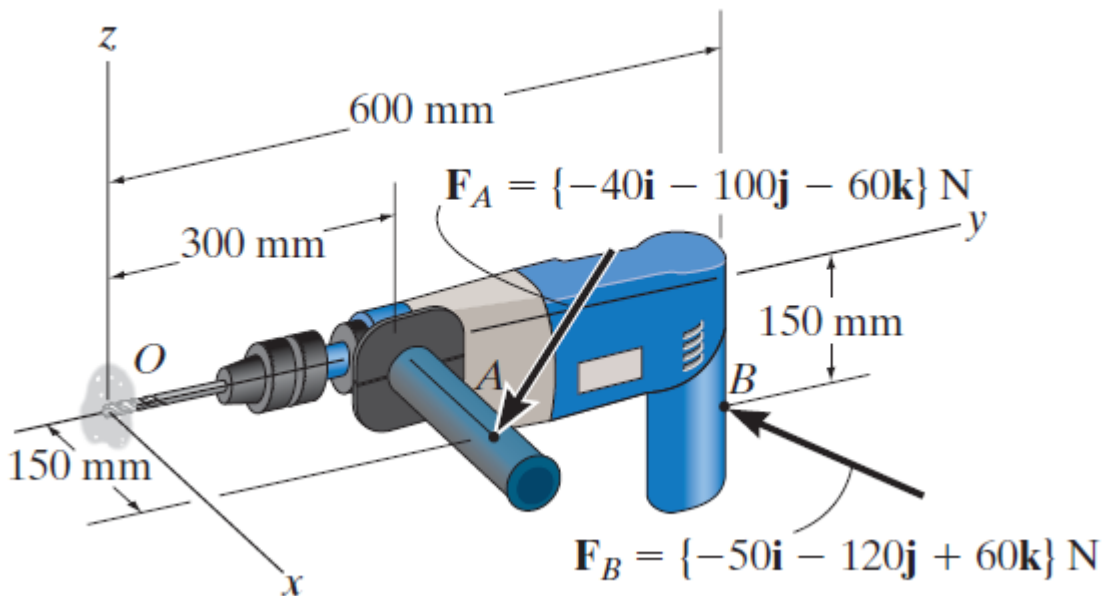


การบ้าน

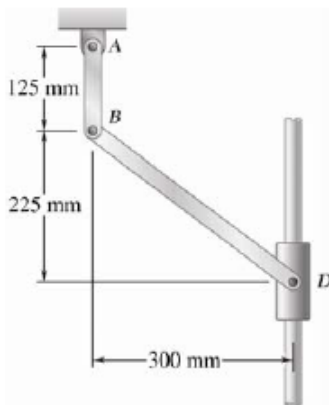
1. Determine the moment produced by force  $F_C$  and  $F_B$  about  $O$ . Express the results as a Cartesian vector



2. Determine the moment produced by each force about  $O$  located on the drill bit. Express the results as Cartesian vectors.



3.



### PROBLEM 15.59

Knowing that at the instant shown the angular velocity of crank  $AB$  is  $2.7 \text{ rad/s}$  clockwise, determine (a) the angular velocity of link  $BD$ , (b) velocity of collar  $D$ , (c) the velocity of the midpoint of link  $BD$ .