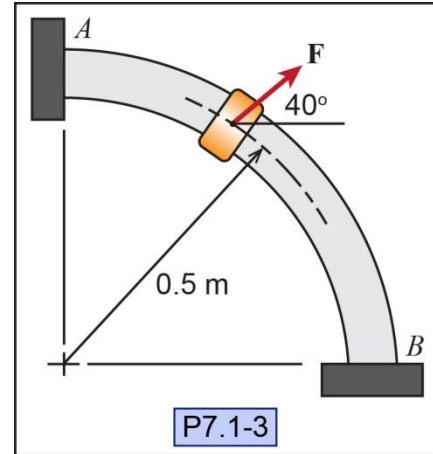


P7.1-3)^{fe} A 10-N force \mathbf{F} pushes a 2-kg collar along the curved rod shown from position A to position B while maintaining a constant direction. Determine the work done by the force \mathbf{F} . You may assume that the dimensions of the collar are sufficiently small to be neglected.



Given:

Find:

Solution:

Calculate the work done by the force.

Calculate the work done by the force in the horizontal direction.

$$U_{hor} = \underline{\hspace{10em}}$$

Calculate the work done by the force in the vertical direction.

$$U_{vert} = \underline{\hspace{10em}}$$

Calculate the total work done by the force.

$$U = \underline{\hspace{10em}}$$