DYNAMICS ASSIGNMENT

Planar Kinetics of a Rigid Body (General Plane Motion)

by:

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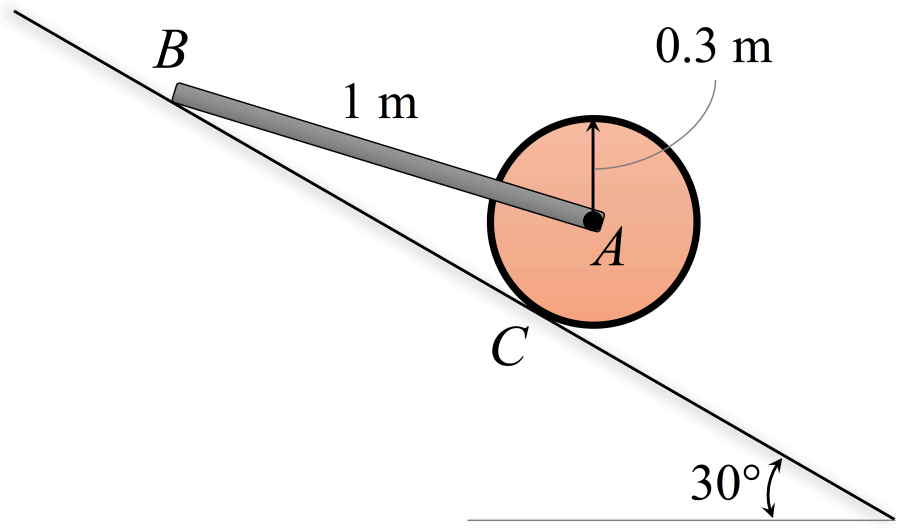
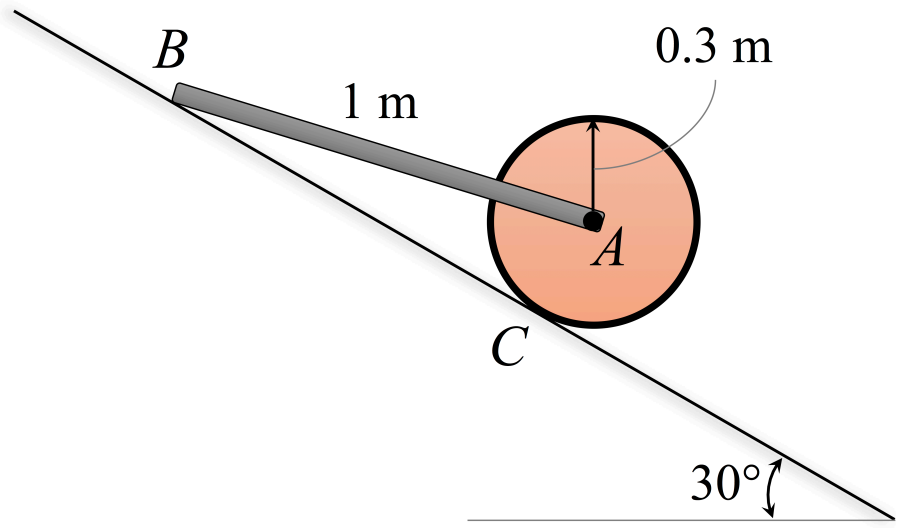
Question 1 – General Plane Motion



The assembly consists of an 8-kg disk and a 10-kg bar which is pin connected to the disk.

The coefficients of static and kinetic friction between the disk and the inclined plane are $\mu_s = 0.6$ and $\mu_k = 0.4$, respectively, while the friction at B is negligible. If the system is released from rest, determine the angular and linear accelerations of the disk, as well as all external forces that act on the bodies.

Question 2 – General Plane Motion



The assembly consists of an 8-kg disk and a 10-kg bar which is pin connected to the disk.

If the bar *AB* is removed and the coefficients of static and kinetic friction between the disk and inclined plane are $\mu_s = 0.15$ and $\mu_k = 0.1$, respectively, determine the angular and linear accelerations of the disk, as well as all external forces that act on the bodies.