## Homework H.2.F

Given: Rigid bar AB is constrained to move along an angled slot at end A. A circular disk with an outer radius of $R$ is able roll without slipping on a rough, horizontal floor. Bar AB is pinned to disk at point B on the perimeter of the disk. Pin A is known to move with a constant speed of $v_{A}$ in the slot. At the position shown, bar AB is horizontal

Find: For position shown:
(a) Determine the angular velocities of link AB and of the disk. Write your answers as vectors
(b) Determine the angular accelerations of link AB and of the disk. Write your answers as vectors


Use the following parameters in your analysis: $R=2 \mathrm{ft}, L=6 \mathrm{ft}, v_{A}=10 \mathrm{ft} / \mathrm{s}$ and $\theta=36.87^{\circ}$.

