

## Homework H.2.J

**Given:** A mechanism is made up of block B, a circular disk having an outer radius of  $R$  and link AD. Block B is constrained to move along a horizontal surface with the disk being able to roll without slipping on block B. Link AD is pinned to point A on the disk and to a slider at D, with the slider being constrained to move along a horizontal guide. At the instant shown, A is directly to the right of the center C of the disk, and block B moves to the left with a constant speed of  $v_B$ .

**Find:** For the position shown:

- Determine the angular velocities of the disk and link AD. Write your answers as vectors.
- Determine the angular accelerations of the disk and link AD. Write your answers as vectors.

