Final Exam, Spring 2005A: Problem 3 (Rigid Body Kinematics)
3. ( 25 points) Shown below is a generalized slider, currently in a horizontal position. If $\omega=3 \mathrm{rad} / \mathrm{sec}$ and $\alpha=2 \mathrm{rad} / \mathrm{sec}^{2}$ in the directions shown, please determine and write as polar or Cartesian vectors:
(a) $v_{B}$
(b) $\mathrm{a}_{\mathrm{B}}$.

For bar AB:
$\omega=3 \mathrm{rad} / \mathrm{s}^{\longrightarrow}$
$\alpha=2 \mathrm{rad} / \mathrm{s}^{2}$ )


## For bar AB:

$$
\begin{aligned}
& \omega=3 \mathrm{rad} / \mathrm{s}^{2} \\
& \alpha=2 \mathrm{rad} / \mathrm{s}^{2}
\end{aligned}
$$



