

#24  $\langle 1/2, \sqrt{3}/2 \rangle$

#30  $\vec{u} = \langle -5, 8 \rangle \quad \vec{v} = \langle 7, -11 \rangle$

Set up a system of 2 linear equations, solve by elimination or substitution.

#38

- a) Circle of radius 1 about the tip of  $\vec{r}_0$
- b) Closed disk of radius 1 about the tip of  $\vec{r}_0$
- c) All points outside of the closed disk of radius 1 about the tip of  $\vec{r}_0$

#44  $4.86 \text{ lb}, \quad \alpha \approx 23.64^\circ, \quad \theta \approx -3.36^\circ$

#46  $179.37 \text{ N}, \quad \theta \approx 91.94^\circ$