

Let $\vec{\mathbf{A}} = \langle 3, -1, 4 \rangle$ and $\vec{\mathbf{B}} = \langle -2, 3, -1 \rangle$

1.
 - a) Find $\vec{\mathbf{A}} \times \vec{\mathbf{B}}$ (in terms of components).
 - b) Find $\vec{\mathbf{B}} \times \vec{\mathbf{A}}$.

2. Find $|\vec{\mathbf{A}}|$, $|\vec{\mathbf{B}}|$, and $|\vec{\mathbf{A}} \times \vec{\mathbf{B}}|$. From these values, find the angle θ between $\vec{\mathbf{A}}$ and $\vec{\mathbf{B}}$.