

12.39. Visualize: Please refer to Figure EX12.39.

Solve: (a) The magnitude of $\vec{A} \times \vec{B}$ is $AB \sin \alpha = (6)(4) \sin 60^\circ = 20.78$. The direction of $\vec{A} \times \vec{B}$ is given by the right hand rule. To curl our fingers from \vec{A} to \vec{B} , we have to point our thumb out of the page. Thus, $\vec{A} \times \vec{B} = (21, \text{out of the page})$.

(b) $\vec{C} \times \vec{D} = ((6)(4) \sin 90^\circ, \text{into the page}) = (24, \text{into the page})$.