

Answer on question #52311, Physics, Quantum Mechanics

Question Which of the following is NOT correct?

$$\begin{aligned}\vec{k} \cdot \vec{k} &= 1 \\ \vec{i} \times \vec{j} &= \vec{k} \\ \vec{i} \times \vec{k} &= -\vec{j} \\ \vec{j} \cdot \vec{j} &= 0\end{aligned}$$

Solution $\vec{j} \cdot \vec{j} = 0$ is not correct.

It should be $\vec{j} \cdot \vec{j} = |\vec{j}|^2 = 1$ as it is unit vector.