AIPMT 2006

1. The vectors $\vec{A}$ and $\vec{B}$ are such that $|\vec{A}+\vec{B}| = |\vec{A}-\vec{B}|$. The angle between vectors $\vec{A}$ and $\vec{B}$ is -

(1) 90° (2) 60° (3) 75° (4) 45°

AIPMT 2007

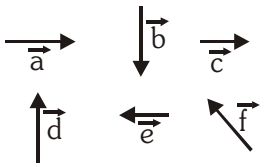
2. If $|\vec{A}\times\vec{B}| = \sqrt{3}\ \vec{A}.\vec{B}$, then the value of $|\vec{A}+\vec{B}|$ is :

(1) $\left(A^2+B^2+\frac{AB}{\sqrt{3}}\right)^{1/2}$ (2) A + B

(3) $(A^2+B^2+\sqrt{3}\ AB)^{1/2}$ (4) $(A^2+B^2+AB)^{1/2}$

AIPMT 2010

3. Six vectors, $\vec{a}$ through $\vec{f}$ have the magnitudes and directions indicated in the figure. Which of the following statements is true ?



(1) $\vec{b}+\vec{e}=\vec{f}$ (2) $\vec{b}+\vec{c}=\vec{f}$

(3) $\vec{d}+\vec{c}=\vec{f}$ (4) $\vec{d}+\vec{e}=\vec{f}$

Re-AIPMT 2015

4. If vectors

$\vec{A} = \cos\omega t\hat{i} + \sin\omega t\hat{j}$ and $\vec{B} = \cos\frac{\omega t}{2}\hat{i} + \sin\frac{\omega t}{2}\hat{j}$

are functions of time, then the value of t at which they are orthogonal to each other is :

(1) t = 0 (2) $t = \frac{\pi}{4\omega}$

(3) $t = \frac{\pi}{2\omega}$ (4) $t = \frac{\pi}{\omega}$

NEET-I 2016

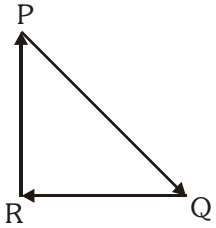
5. If the magnitude of sum of two vectors is equal to the magnitude of difference of the two vectors, the angle between these vectors is :-

(1) 0° (2) 90°

(3) 45° (4) 180°

NEET(UG) 2019

6. A particle moving with velocity $\vec{V}$ is acted by three forces shown by the vector triangle PQR. The velocity of the particle will :



(1) increase

(2) decrease

(3) remain constant

(4) change according to the smallest force $\overrightarrow{QR}$

Que.	1	2	3	4	5	6
Ans.	**1**	**4**	**4**	**4**	**2**	**3**