

Centum Preparation 100 Days plan class 12 Maths

Q.No.	DAY - 45
272	Example 6.45 Verify whether the line $\frac{x-3}{-4} = \frac{y-4}{-7} = \frac{z+3}{12}$ lies in the plane $5x - y + z = 8$.
273	Example 6.46 Show that the lines $\vec{r} = (-\hat{i} - 3\hat{j} - 5\hat{k}) + s(3\hat{i} + 5\hat{j} + 7\hat{k})$ and $\vec{r} = (2\hat{i} + 4\hat{j} + 6\hat{k}) + t(\hat{i} + 4\hat{j} + 7\hat{k})$ are coplanar. Also, find the non-parametric form of vector equation of the plane containing these lines.
274	3. If the straight lines $\frac{x-1}{1} = \frac{y-2}{2} = \frac{z-3}{m^2}$ and $\frac{x-3}{1} = \frac{y-2}{m^2} = \frac{z-1}{2}$ are coplanar, find the distinct real values of m.
275	Example 6.47 Find the acute angle between the planes $\vec{r} \cdot (2\hat{i} + 2\hat{j} + 2\hat{k}) = 11$ and $4x - 2y + 2z = 15$
276	Example 6.48 Find the angle between the straight line $\vec{r} = (2\hat{i} + 3\hat{j} + \hat{k}) + t(\hat{i} - \hat{j} + \hat{k})$ and the plane $2x - y + z = 5$.
277	Example 6.49 Find the distance of a point $(2, 5, -3)$ from the plane $\vec{r} \cdot (6\hat{i} - 3\hat{j} + 2\hat{k}) = 5$.
278	Example 6.50 Find the distance of the point $(5, -5, -10)$ from the point of intersection of a straight line passing through the points $A(4, 1, 2)$ and $B(7, 5, 4)$ with the plane $x - y + z = 5$.