Answer on Question #58242-Physics-Other

The direction of vector in space is specified by

Solution

The direction of vector in space is specified by two angles. These angles would incline with the reference axes namely $x, y \text{ and } z$ axes. The angles usually denoted as $\alpha, \beta \text{ and } \gamma$.

Definitely

$$cos^2\alpha \; + \; cos^2\beta \; + \; cos^2\gamma \; = \; 1$$

So, if alpha and beta are given then gamma could be found by the above condition and the direction of vector in space could be specified easily. Hence, $cos \; \alpha, cos \; \beta \text{ and } cos \; \gamma$ have been named as direction cosines.

Answer: two angles.