Related Questions with Solutions

Questions

Quetion: 01

The value of p so that the lines $\frac{x+1}{-3}=\frac{y-p}{2}=\frac{z+2}{1}$ and $\frac{x}{1}=\frac{y-7}{-3}=\frac{z+7}{2}$ are in the same plane.

A. 3
B. 2
C. 5
D. -1

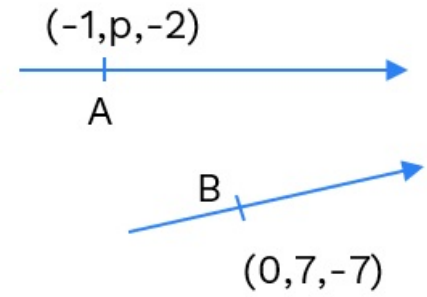
Solutions

Solution: 01

$\overrightarrow{AB}=\hat{\imath}+(7-p)\hat{j}-5\hat{k}$
$\overrightarrow{dv_1}=-3\hat{\imath}+2\hat{j}+\hat{k}$
$\overrightarrow{dv_2}=\hat{i}-3\hat{j}+2\hat{k}$

$$\begin{vmatrix} 1 & 7-p & -5 \\ -3 & 2 & 1 \\ 1 & -3 & 2 \end{vmatrix}=0$$

7 + [p –7] [–7] –5[7] = 0
7 p = 21 $\Rightarrow$ p = 3



Correct Options

Answer:01
Correct Options: A