The number of values of k , for which the system of equations : $(k+1)x+8y=4k$; $kx+(k+3)y=3k-1$, has no solution, is :

Solution:

$$\left.\begin{aligned}(k+1)x+8y&=4k\\ kx+(k+3)y&=3k-1\end{aligned}\right\}\ \text{no solution}$$

For no solution : $\frac{a_1}{a_2}=\frac{b_1}{b_2}\neq\frac{c_1}{c_2}$

$$\frac{k+1}{k}=\frac{8}{k+3}\neq\frac{4k}{3k-1}$$

$$\frac{k+1}{k}=\frac{8}{k+3}\Rightarrow k=1,3$$

For $k=1$ $\frac{8}{1+3}=\frac{4\times1}{3\times1-1}$ (not possible)

For $k=3$ $\frac{8}{3+3}\neq\frac{4\times3}{3\times3-1}$ (possible)

A Infinite

B 1

C 2

D 3

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