Step-1

(x,y,z) is a linear combination of $(2,3,1),(1,2,3)$ so that the vectors $(x,y,z),(2,3,1),(1,2,3)$ are linearly dependent and hence we get

$$\begin{vmatrix} x & y & z \\ 2 & 3 & 1 \\ 1 & 2 & 3 \end{vmatrix} = 0$$

Step-2

Equation of the plane is

$$x(9-2)-y(6-1)+z(4-3)=0$$
$$\Rightarrow 7x-5y+z=0$$

All linear combinations (x,y,z) of $(2,3,1),(1,2,3)$ satisfy the equation $\boxed{7x-5y+z=0}$