Let ℓ be the line through $(1,0,2)$ and $(0,1,1)$. A vector equation for ℓ is $(x,y,z) = t(1,-1,1) + (0,1,1)$ giving scalar parametric equations: $x=t$, $y=1-t$, and $z=t+1$. By solving for t we obtain symmetric equations: $x = 1-y = z-1 = t$ from which we obtain equations for three planes

$x+y-1=0$, $x-z+1=0$, and $y+z-2=0$.