3 ways of writing a line in $\mathbb{R}^3$		3 ways of writing a Plane in $\mathbb{R}^3$	
Vector $\boldsymbol{r} =< 1,2,3 > +t <$ $4,5,6 >$ $r =< point > +t *$ $< gradient >$		Vector $\boldsymbol{r} =< 1,2,3 > +t < 4,5,6 > +s <$ $7,8,9 >$ $r =< point\ in\ plane >$ $+t(vector\ lies\ in\ plane >$ $+s < another\ vector\ lies\ in\ plane >$	
Parametric $x = 1 + 4t$ $y = 2 + 5t$ $z = 3 + 6t$		Parametric $x = 1 + 4t + 7s$ $y = 2 + 5t + 8s$ $z = 3 + 6t + 9s$	
Cartesian $\frac{x-1}{4} = \frac{y-2}{5} = \frac{z-3}{6}$ $= t$		Cartesian $3x - 6y + 3z = 0$ $ax + by + cz = d$ $n =< a, b, c >$ is a vector that is normal to the plane. This vector n is the result of the cross product of the 2 vectors that lie in the plane from the vector form. The value of d depends on the location of plane and can be any number.	