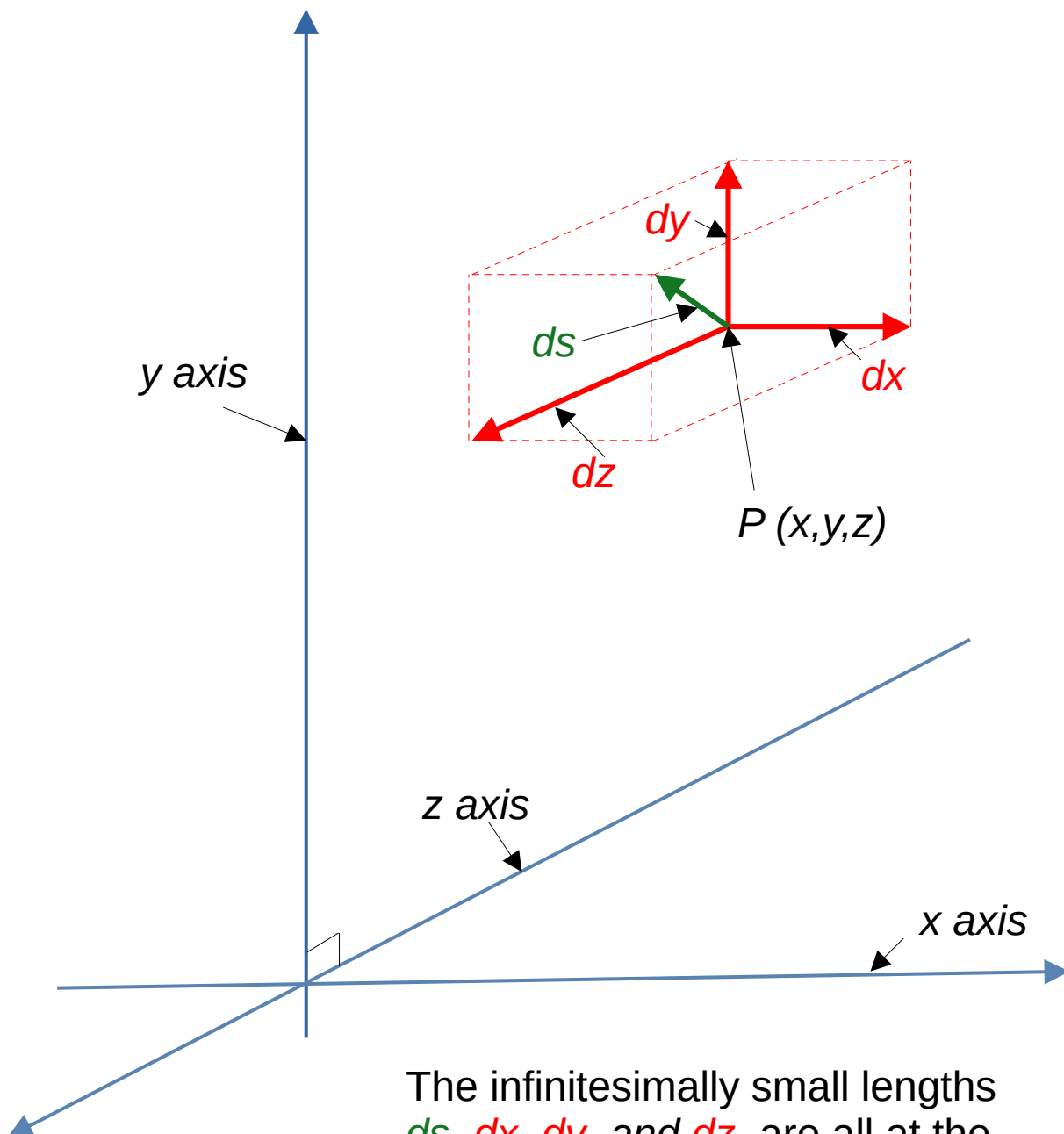


Cartesian coordinates

An infinitesimally small length ds at a point $P(x,y,z)$ in three dimensional space measured in Cartesian coordinates, x , y , and z



The infinitesimally small lengths ds , dx , dy , and dz , are all at the point $P(x,y,z)$.

$$ds^2 = dx^2 + dy^2 + dz^2$$

$$ds = (dx^2 + dy^2 + dz^2)^{1/2}$$