Rays

Ray starting at 0:

Parametric line.

Ray starting at a(🡪) going in direction b(🡪)

P(🡪) (t) = a(🡪) +t\*b(🡪)

Vector multiplication:

* (a,b,c)\*(d,e,f) = (ad, be, cf) # used to multiply colors RGB with shading
* Dot product – (a,b,c)\*(d,e,f) = (ad+be+cf) OR v(🡪)\*w(🡪) = v(🡪).w(🡪)
* V(🡪).w(🡪) = |v(🡪)|.|w(🡪)|.cos(v(🡪), w(🡪))

For(i in [o,nx-1])

For(j in [o,ny-1])

Equation for normal vector to the sphere:

N(🡪) = (p(🡪) – c(🡪))/ | p(🡪) – c(🡪)|.