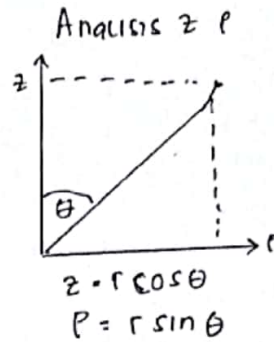
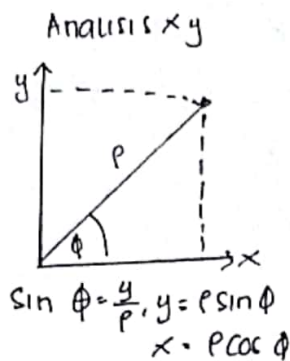
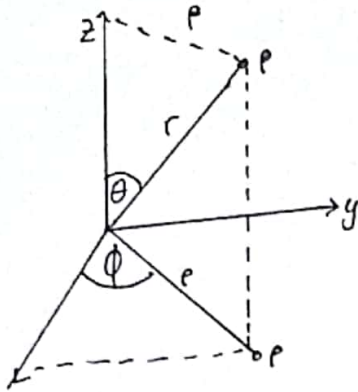


Nama : Tri Lestari
 Npm : 2013022058
 Kelas : B

Koordinat Bola ($r \theta \phi$)



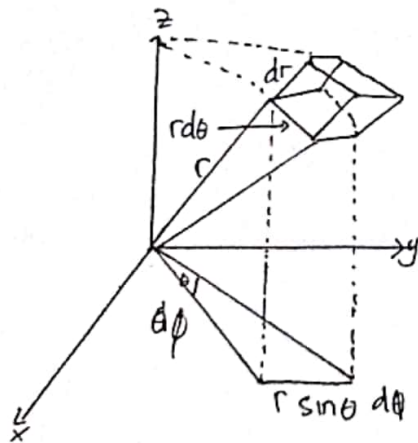
$$x = \rho \cos \phi$$

$$x = r \sin \theta \cos \phi$$

$$y = \rho \sin \phi$$

$$y = r \sin \theta \sin \phi$$

$$z = r \cos \theta$$



$$dV = dr \cdot r d\theta \cdot r \sin \theta d\phi$$

$$dV = r^2 dr \sin \theta d\theta d\phi$$

Elemen Volume: $dV = r^2 \sin \theta dr d\theta d\phi$

Elemen luas: $dA = r d\theta \cdot r \sin \theta d\phi$

Elemen panjang: $d\ell^2 = dr^2 + r^2 d\theta^2 + r^2 \sin^2 \theta d\phi^2$

$$\sin d\phi = \frac{x'}{\rho}$$

$$d\phi = \frac{x'}{r \sin \theta}$$

$$x' = r \sin \theta d\phi$$

$$\sin d\theta = \frac{y'}{r}$$

$$y' = r d\theta$$