

$$\begin{bmatrix} \frac{1}{\text{aspect} \tan \frac{fov}{2}} & 0 & 0 & 0 \\ 0 & \frac{1}{\tan \frac{fov}{2}} & 0 & 0 \\ 0 & 0 & \frac{zFar + zNear}{zNear - zFar} & \frac{2 \times zFar \times zNear}{zNear - zFar} \\ 0 & 0 & -1 & 0 \end{bmatrix}$$

$$\text{aspect} = \frac{\text{viewPortWidth}}{\text{viewPortHeight}}$$

zNear and zFar is always positive

zNear is the distance from viewer to near clipping plane

zFar is the distance from viewer to the far clipping plane