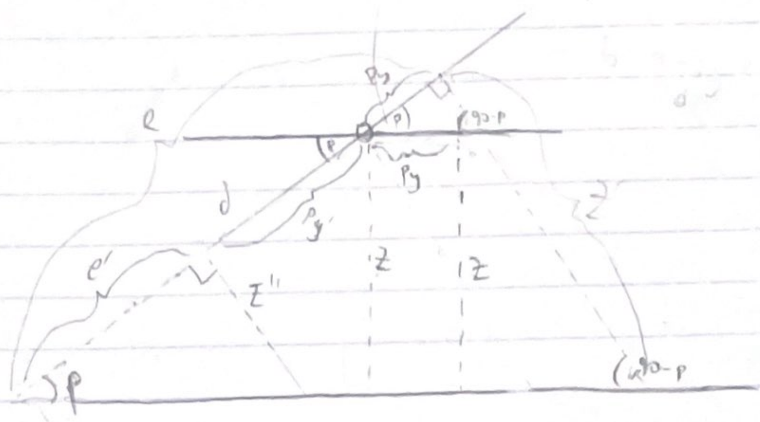
2D



$\sin p = \frac{z}{d} \Rightarrow d = \frac{z}{\sin p}$ (1)

$e = d + p_y$ (2)

$\tan p = \frac{z'}{e} \Rightarrow z' = \tan p \cdot e \xrightarrow{(2)} z' = \tan p\,(d + p_y) \Rightarrow$

$\xrightarrow{(1)} z' = \frac{\sin p}{\cos p}\left(\frac{z}{\sin p} + p_y\right) \Rightarrow \boxed{z' = \frac{z}{\cos p} + p_y \cdot \tan p}$

Checking z'' for symmetry:

$\sin p = \frac{z}{d} \Rightarrow d = \frac{z}{\sin p}$

$e' = d - p_y'$

$\tan p = \frac{z''}{e'} \Rightarrow z'' = e' \tan p \Rightarrow z'' = (d - p_y') \tan p \Rightarrow z'' = \left(\frac{z}{\sin p} - p_y'\right) \tan p$

$\Rightarrow z'' = \frac{z}{\cos p} - p_y' \tan p$ OK

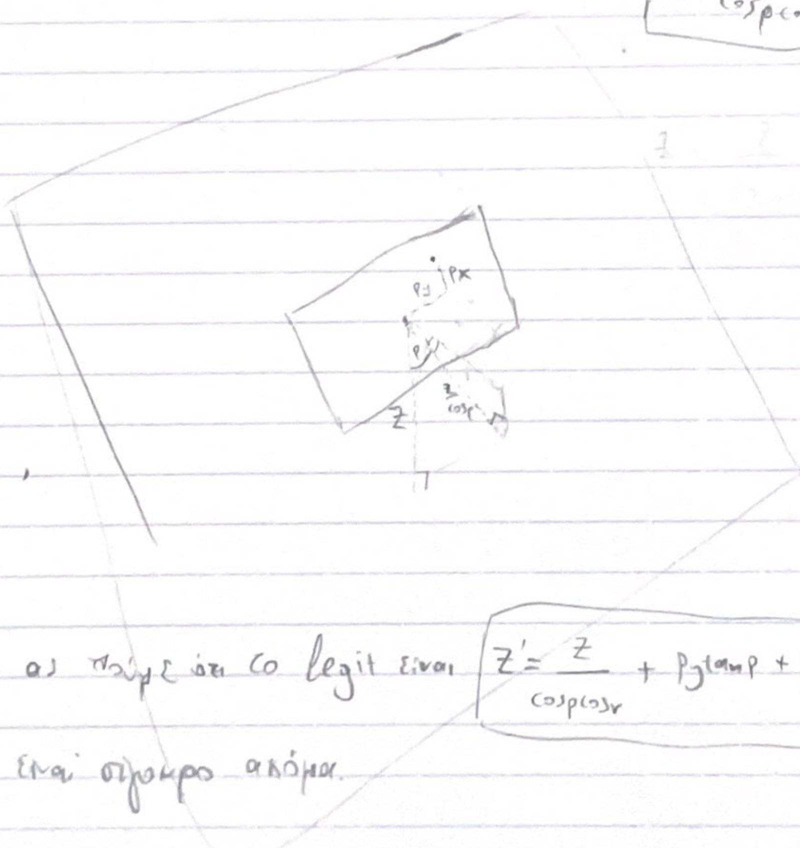
Karagiannis' estimation works for the center pixel i.e. for $p_y = 0$

$$\cos r = \frac{\frac{z}{\cos p}}{z'} \Rightarrow$$

$$\Rightarrow \cos r = \frac{z}{z' \cos p} \Rightarrow$$

προσέγγιση

$$\Rightarrow \boxed{z' = \frac{z}{\cos p \cos r}}$$



Για την ώρα ας πούμε ότι το legit είναι $\boxed{z' = \frac{z}{\cos p \cos r} + p_y \tan p + p_x \tan r}$ χωρίς να είναι σίγουρο ακόμα.