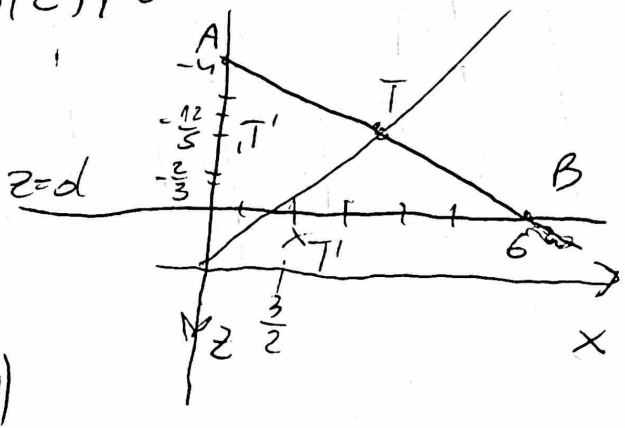
3. $x \to \frac{d}{z}$, $y \to \frac{d}{z} y$ $z \to z$

$T(x, y, z)$, $z = d$



$d = -1$

$A = (0, 0, -4)$

$B = (6, 0, 0)$

$A' = A$ $B = B'$

a) $C = (\frac{12}{5}, 0, -\frac{12}{5})$ $D = (5, 0, -\frac{2}{3})$

$\frac{12}{5} \to \frac{-1}{-\frac{12}{5}} = \frac{5}{12}$ $0 \to \frac{-1}{-\frac{12}{5}} \cdot 0 = 0$ $\frac{12}{5} \to -\frac{12}{5}$

$C'(\frac{5}{12}, 0, -\frac{12}{5})$

$D = (5, 0, -\frac{2}{3})$

$5 \to \frac{-1}{-\frac{2}{3}} = \frac{3}{2}$ $0 \to 0$ $-\frac{2}{3} \to -\frac{2}{3}$

$D'(\frac{3}{2}, 0, -\frac{2}{3})$

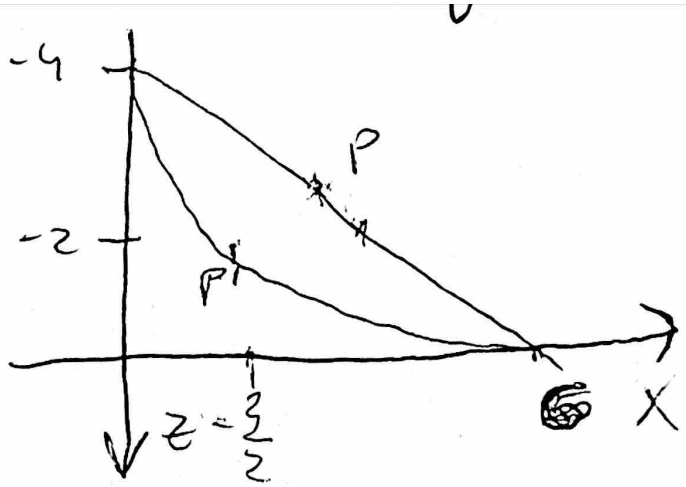
$\overrightarrow{AB} = (6, 0, 4)$ $\overrightarrow{C'D'} = (\frac{13}{12}, 0, \frac{26}{15})$ $\overrightarrow{AB} = \lambda \cdot \overrightarrow{C'D'}$

$\begin{cases} 6 = \frac{13}{12}\lambda \to \lambda = \frac{72}{13} \\ 4 = \frac{26}{15}\lambda \to \lambda = \frac{30}{13} \end{cases}$

$\lambda_1 \neq \lambda_2$
nisu paralelni
pa ni kotničnih

nisu paralelni

e)



$$x_P = \frac{x_A + x_B}{2} = \frac{0+6}{2} = 3$$

$$z_P = \frac{z_A + z_B}{2} = \frac{-4+0}{2} = -2$$

$$(x, y, z) \rightarrow \left(\frac{-d}{z}x, \frac{-d}{z}y, z\right)$$

$$x_{P'} = \frac{-d \cdot x_P}{z} = \frac{-1 \cdot 3}{2} = \frac{3}{2}$$

$$z_{P'} = -2$$

$$y_P = \frac{y_A + y_B}{2} = \frac{0+0}{2} = 0 = y_{P'}$$