DZ 2

③ a) $d = -1$

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

$B = (6,0,0)$

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

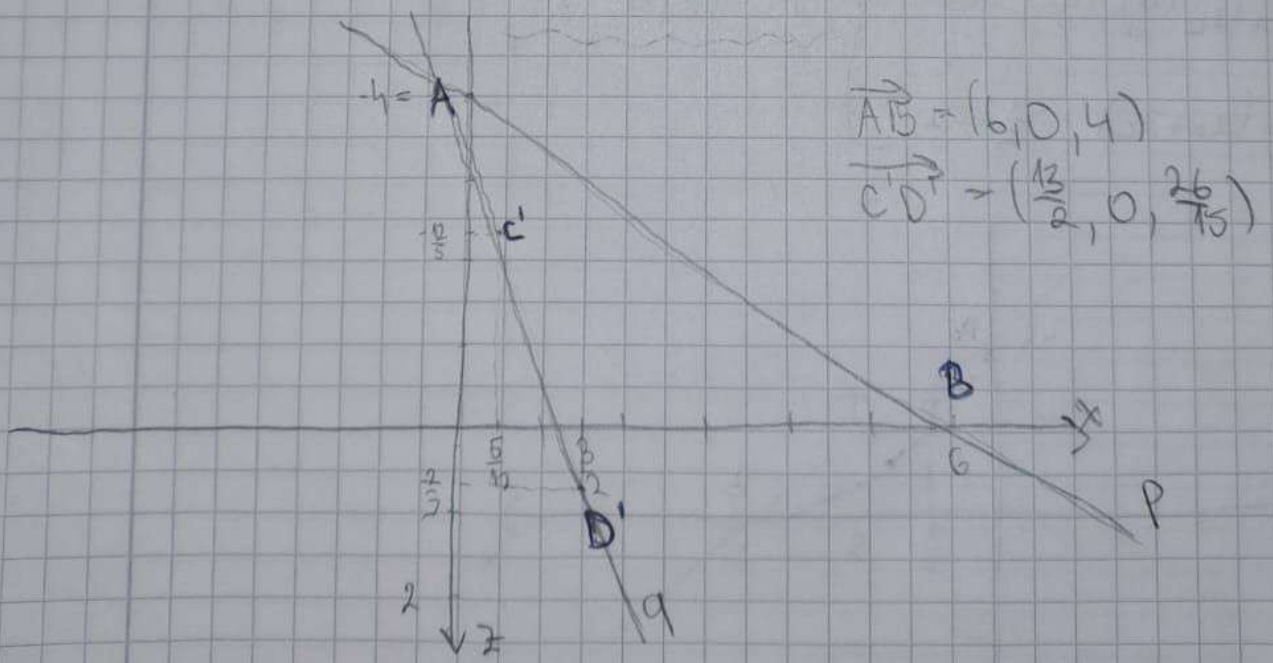
$x \mapsto \frac{d}{z}$, $y \mapsto \frac{d}{z}y$, $z \to z$

$C = \left(\frac{12}{5}, 0, -\frac{12}{5}\right)$

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

C: $x = \frac{12}{5} \mapsto \frac{5}{12}$, $y = 0 \mapsto 0$, $z = 5 \mapsto \frac{3}{2}$ $\Rightarrow$ $\boxed{C' = \left(\frac{5}{12}, 0, -\frac{12}{5}\right)}$

D: $x = 5 \mapsto \frac{3}{2}$, $y = 0 \mapsto 0$, $z = -\frac{2}{3} \mapsto \frac{2}{3}$ $\Rightarrow$ $\boxed{D' = \left(\frac{3}{2}, 0, -\frac{2}{3}\right)}$



$\vec{AB} = (6,0,4)$

$\vec{C'D'} = \left(\frac{13}{2}, 0, \frac{26}{15}\right)$

Zapišemo pravce kao da se nalaze u 2D prostoru sa x i z koordinatama

$p \dots \quad z + 4 = \frac{0+4}{6-0}(x-0)$

$z = \frac{2}{3}x - 4$

$q \dots \quad z + \frac{12}{5} = \frac{-\frac{2}{3} + \frac{12}{5}}{\frac{3}{2} - \frac{5}{12}}\left(x - \frac{5}{12}\right)$

$z = \frac{6}{5}x - \frac{46}{15}$

Koeficijenti pravaca nisu jednaki $\Rightarrow$ **NISU PARALELNI**

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

$B = B' = (6, 0, 0)$

$$\left.\begin{aligned} x_T &= \tfrac{1}{2}(0+6) = 3 \\ y_T &= \tfrac{1}{2}(0+0) = 0 \\ z_T &= \tfrac{1}{2}(-4+0) = 2 \end{aligned}\right\} T = (3, 0, -2)$$

$$\left.\begin{aligned} x_{T'} &= \frac{d}{z_A + z_B}(x_A + x_C) = \frac{-6}{-4} = \frac{3}{2} \\ y_{T'} &= \frac{d}{z_A + z_C}(y_A + y_C) = 0 \\ z_{T'} &= \tfrac{1}{2}(z_A + z_C) = \frac{-4}{2} = -2 \end{aligned}\right\} T' = \left(\tfrac{3}{2}, 0, -2\right)$$