Zad 1. L5

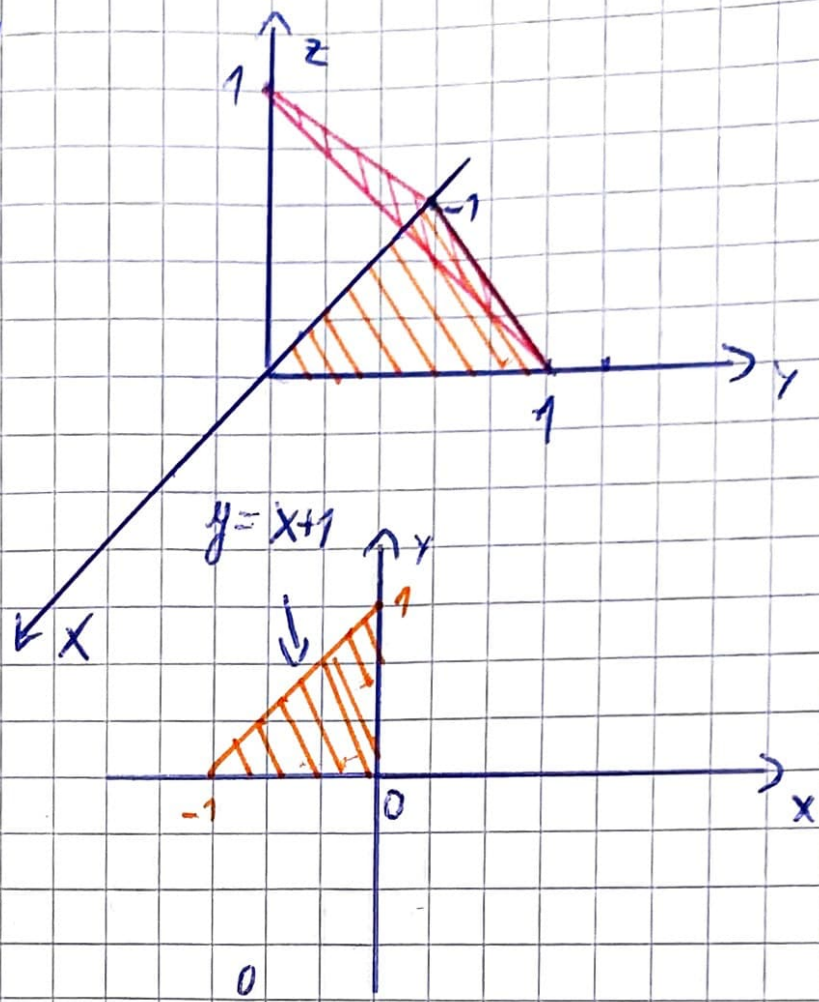
$y=0,\ z=0,\ x=0,\ y-x+z=1$ → $z=x-y+1$

PUNKTY PRZECIĘCIA ZOSTAMI:

(-1,0,0)

(0,1,0)

(0,0,1)



$$V=\int_{-1}^{0}\int_{0}^{x+1}(x-y+1)\,dy\,dx=$$

$$=\int_{-1}^{0}\left[xy-\frac{1}{2}y^2+y\right]_0^{x+1}dx=\int_{-1}^{0}x^2+x-\frac{1}{2}(x^2+2x+1)+x+1\,dx=\int_{-1}^{0}x^2+x-\frac{1}{2}x^2-x-\frac{1}{2}+x+1=$$

$$=\int_{-1}^{0}\frac{1}{2}x^2+x+\frac{1}{2}\,dx=\frac{x^3}{6}+\frac{x^2}{2}+\frac{x}{2}\Big|_{-1}^{0}=\frac{1}{6}$$