T1

Geometric visualization (Geogebra)

$$\left.\begin{array}{l} x+y = 5 \\ x-y = 5 \\ z = 5 \end{array}\right\} (5,0,5)$$

|| to

z-axis...

$\Rightarrow$ single soln (unique soln)

$z = 5 \Rightarrow$ parallel to $(x-y)$ plane