

$$x^2 + 4y^2 + 4z^2 - 4xy + 4xz - 8yz$$

1) COMPLETAMENTO DEI QUADRATI

$$= (x - 2y + 2z)^2 \leadsto m_+ = 1 \quad m_- = 0 \quad m_0 = 2$$

2) SYLVESTER

$$\begin{pmatrix} \boxed{1} & -2 & \boxed{2} \\ -2 & \boxed{4} & -4 \\ \boxed{2} & -4 & \boxed{4} \end{pmatrix}$$

$$\text{DET}_1 = 1 \quad \text{DET}_2 = 0 \quad \text{DET}_3 = 0$$

$$\leadsto \begin{cases} + & 0 & 0 \\ + & - & 0 \\ + & + & 0 \end{cases}$$