$$x^2 + 2x - y^2 - z^2 \begin{cases} \text{none} \end{cases}$$

$$(5x + 7y - 25)^{-(x^2 + xy^2 + y^2)}$$

$$x^2 + y^2 + z^2 + 2x + 4y - 6z \begin{cases} -14 \text{ min} & (-1: -2: 3) \end{cases}$$

$$2x - 6y + 8z - x^2 - y^2 - 2z^2$$

$$x^2 + y^2 + z^2 - xy + x - 2y \begin{cases} -1 \text{ min} & (0{:}1{:}0) \end{cases}$$

$$x^4 + y^2 + z^2 - 2x^2 + 4y + 6z$$

$$(x+1)^3 + y^2 + z^3 \begin{cases} \text{sad} & (-1{:}0{:}0) \end{cases}$$

$$(x-1)^4 + y^2 - (z+1)^2$$

$$x^3 + (y-2)^4 + z^2 \begin{cases} \text{sad} & (0{:}2{:}0) \end{cases}$$

$$x^3 - yz + y^2 + 4x^2 - 8x + 16$$

$$2x^2 + y^2 + z^2 + 2xy - 4y + z \begin{cases} -\dfrac{33}{4} \text{ min} & \left(-2{:}4{:}-\dfrac{1}{2}\right) \end{cases}$$