- X_1: litres of the first component.
- X_2: litres of the second component.

$$\text{Maximize } f = \ln(X_1 \cdot X_2) - \sqrt[3]{X_1 + 2X_2}$$

Subject to:

$$\left(X_1 - \frac{X_1 + X_2}{2}\right)^2 \leq 10$$
$$\left(X_2 - \frac{X_1 + X_2}{2}\right)^2 \leq 10$$
$$(X_1 + X_2 \leq 80)$$
$$X_i \geq 0 \text{ for } i = 1, 2$$