Calculus Exercises (11.7~11.8)

1. Find the local maximum and minimum values and saddle point(s) of the function
   \[ f(x, y) = x^3 + 8y^3 - 6xy. \]

2. Find the maximum and minimum values of \( f(x, y) = 4x - 4y \) subject to the constraint \( 2x^2 + y^2 = 6 \).

3. A contour map for a function \( f \) is given below. The saddle point occurs at point \( \) (填入鞍点座标); the local minimum value occurs at \( \) (填入产生局部极小值的点座标) and the local maximum value occurs at \( \) (填入产生局部极大值的点座标).

![Contour Map](image-url)