Homework #3

- **Homework (Due date : October 11, 2023 4:00 PM)**
  - Implement the Nelder-Mead method and the Powell's method to find the minimum of
    - $f(x, y) = (x + 3y - 5)^2 + (3x + y - 7)^2$
    - $f(x, y) = 50(x - y^2)^2 + (1 - y)^2$
    - $f(x, y) = (1.5 - x + xy)^2 + (2.25 - x + xy^2)^2 + (2.625 - x + xy^3)^2$
    - Use your own termination criterion among criteria we discussed. If you want, you can use a hybrid criterion.
  - Compare and discuss their performances. If possible, show how the best point is moving on the contour plot of f(x, y).