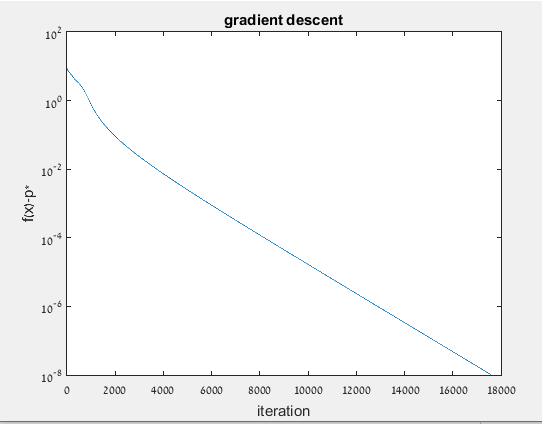
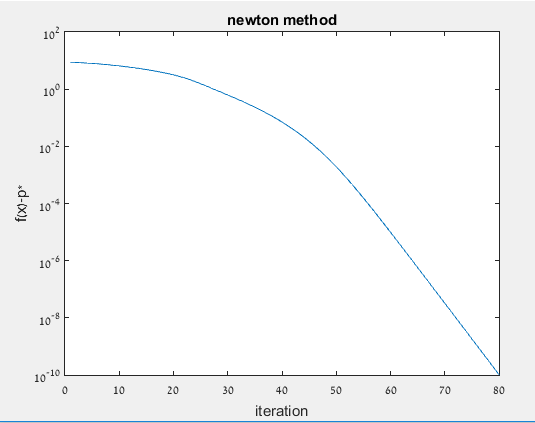
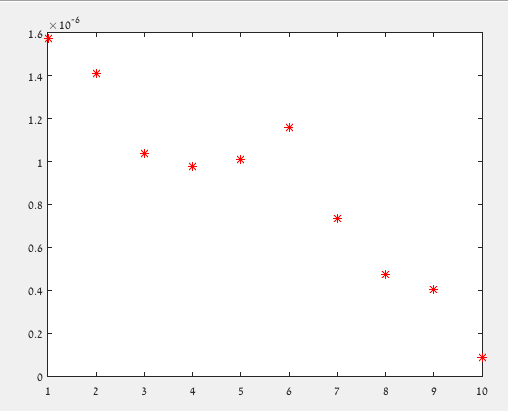
Optimization – HW2 by Dekel Matalon 200686756.

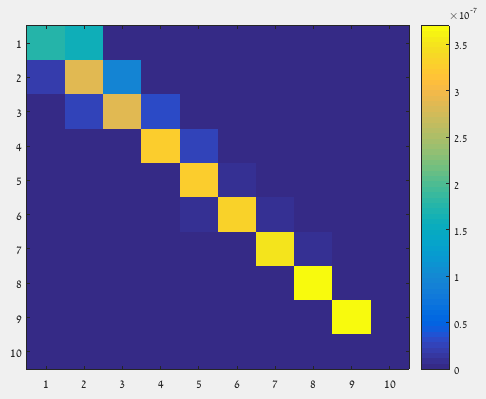
1. **Rosenbruck funcion:**

Numerical aprox of Rosenbruks hessian and gradient:

Gradient:

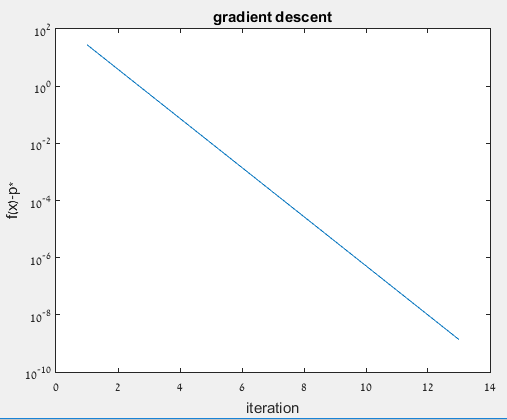


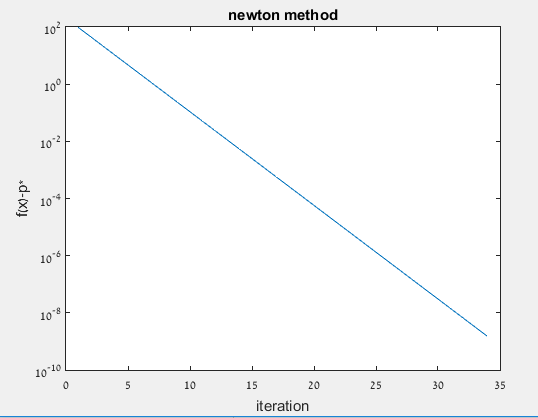
Hessian:

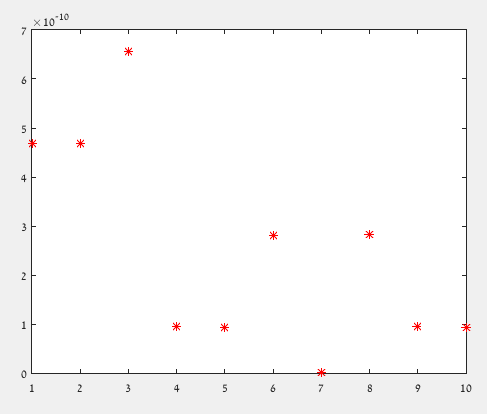


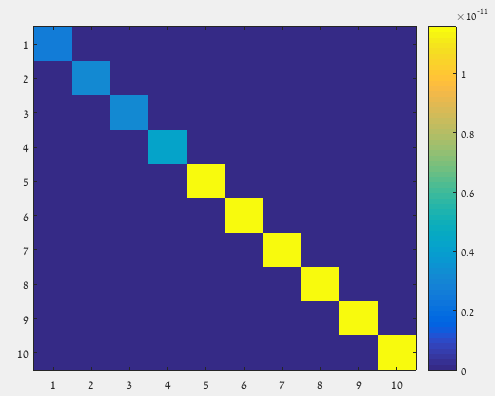
1. Well conditioned quadratic function:

I chose

Using

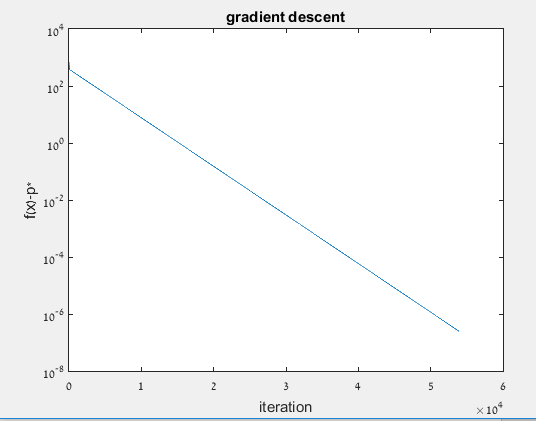


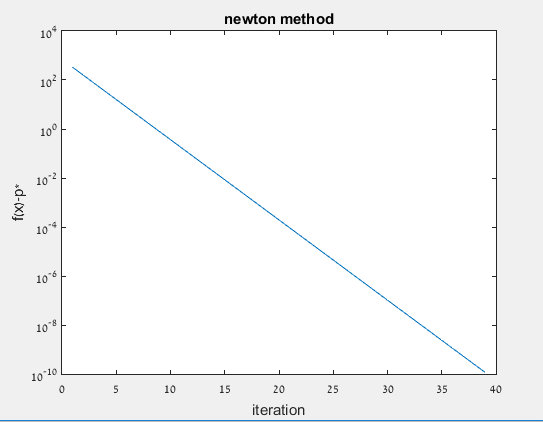
Its numerical correctness:

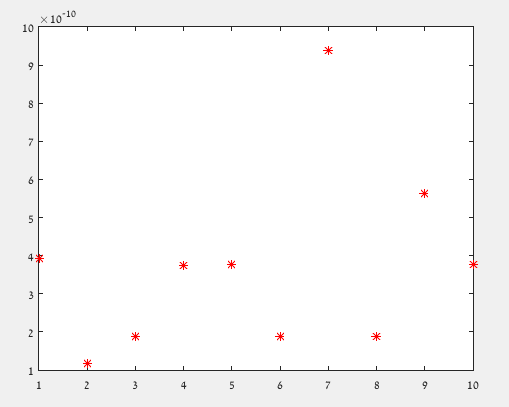


1. Now Choosing ill-conditioned quadratic function.

I chose

Using



Numerical correctness of the ill conditioned quadratic function:

