Take-Home Quiz 5 (Big Data)

1. Use the Map Reduce algorithm to solve the following problems and define exactly Map and Reduce functions.

   - Matrix-Vector Multiplication
   - Matrix Multiplication

2. In which cases Map Reduce algorithm can't solve the problem efficiently? (At least two cases should be mentioned and the cause of each should be briefly explained).

3. Choose which framework is better in each of tasks below, Spark or Hadoop? Why?

   - Getting monthly report from all sale data in Digikala website
   - Processing big social networks like twitter
   - Real-time fraud detection with all camera data in the city