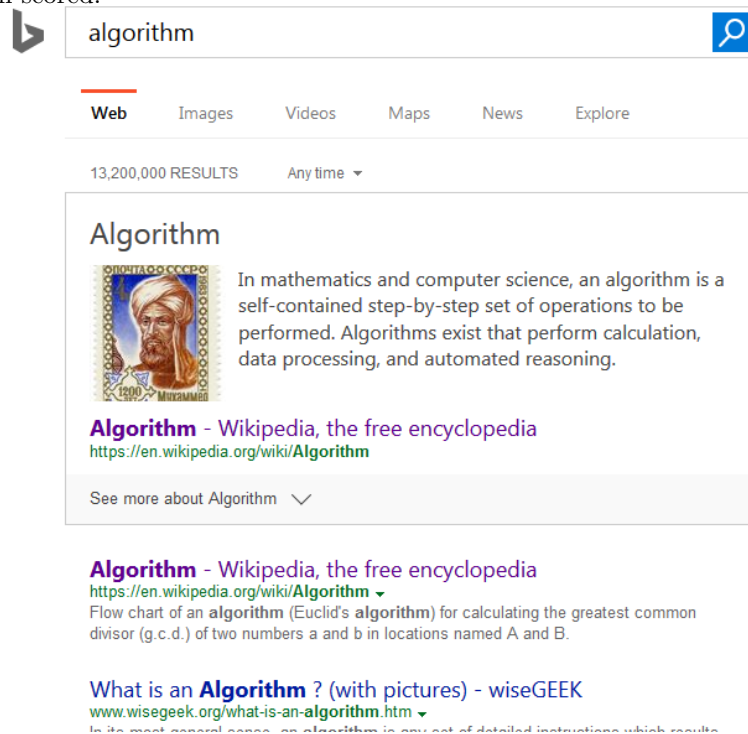# Homework 11

Due 10/11/16

October 6, 2016

When a search engine runs a user's query, it returns the top results that it thinks the user would like to see, generally around 10 or so. The top-k search problem asks you to find the k largest values in a given unsorted array of length n, where $n \gg k$, containing real numbers representing search results that have been scored.

1. Describe an efficient algorithm to solve the top-k search problem. Acceptable algorithms might be $O(n + k \lg n)$ or $O(n \lg k)$, but not $O(nk)$ or $O(n \lg n)$.