EE4483: Artificial Intelligence and Data Mining
Individual project (I)

Due Date: 4PM, 07 October 2016

1. Implement **TWO** different search algorithms to find $x^{3/5}$ of any real number x. Note x can be negative number too. (10 **points**)
    a. Please briefly explain the search strategies of the two algorithms.
    b. Prove that your algorithms guarantee to find the correct answer.
    c. Compare the two search algorithms and their complexity; explain which one is better and why it is better.

Notes:

- This CA contributes to 10 of 100 for the final marks. This is individual project so you need to work on the projects independently and plagiarism will be penalized.
- Matlab is preferred to implement your algorithm, because it is easy for me to test your code. But any other program languages will also be acceptable, e.g. C, C++, Java.
- Source code should be included in the report.
- Email the source codes (<3M) of two problems to me (Email: junsong.yuan@gmail.com) by 4PM Oct. 07, 2016. Make sure the code can be compiled and executed. The title of the email should be: LASTNAME-FIRSTNAME- EE4483-project1
- Submit your hard copy project report (upto 15 pages) to Mrs Choo Guay Kheem, at S1-B1a-02 before the due date. (Email: EPCHOO@ntu.edu.sg; Phone: 6790 5872; submission hour: 8.30am to 11.30am or 1.30pm to 4.00pm) Late submission will have a penalty of 3 points (in total 10 points) per day!