CSC 290	Introduction to Artificial Intelligence	ASSIGNMENT 2
PLEASE SUBMIT YOUR WORK ON E-Mail (Also keep a copy on sent items for just in case).		

Due Date: Mar 20

The assignment is individual, so please do not make any information exchange or do not discuss about the answers or ask anybody for help except the instructor. You can use any Internet resources for reading, you can search for the answers on any search engine (like Google) or you can use any textbooks.

For all the parts below, please write your code in Lisp Programming Language and test with Dr. Racket.

Assumptions

Assume you have given a weighted graph in a list of list format. `(List From To Weight)` order.
For all the questions, your function will get a search value and a tree. Your functions will return one of two results:

- 0 (Zero) in the case, Item not found in tree (if you are searching for an item not in the tree)
- The list of nodes you have between source and destination (if the searched item is in the tree)

Questions

1) Implement A Star Algorithm.

Testing

For the given graph and heuristic values below:

```
(define myGraph
(list (list 1 2 1)
      (list 1 3 3)
      (list 2 3 1)
      (list 3 2 2)
      (list 2 4 2)
      (list 3 5 1)
      (list 2 6 1)
      (list 5 7 1)
  )
  )
(define h ;heuristcs of the nodes
(list (list 1 4)
      (list 2 2)
      (list 3 2)
      (list 4 1)
      (list 5 0)
      )
  )

;(astar graph start_node end_node heuristic_list)
(astar myGraph 1 5 h)
; returns : (list 1 3 5)
```

You can also download the programming practices for tree coding from the web page of course.