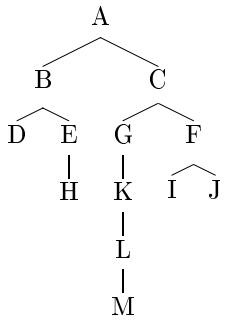
CSE473 Homework #1

Due April 12th 2002 at 9:30 AM in Class on Paper

Name:

Consider the following search tree with start state A and goal state M



with this edge cost g between nodes

Edge	Edge Cost
$A \rightarrow B$	5
$A \rightarrow C$	2
$B \rightarrow D$	8
$B \rightarrow E$	7
$C \rightarrow F$	9
$C \rightarrow G$	1
$E \rightarrow H$	4
$F \rightarrow I$	3
$F \rightarrow J$	4
$G \rightarrow K$	3
$K \rightarrow L$	5
$L \rightarrow M$	4

and this heuristic cost h to the goal state

Node	Heuristic Cost
A	13
B	11
C	11
D	14
E	16
F	18
G	10
H	14
I	17
J	15
K	8
L	2
M	0

1 Node Order

For each of the following search methods, show the order in which the nodes are visited.

1.1 Breadth First

1.2 Depth First

1.3 Uniform Cost

1.4 Greedy

1.5 A*

2 Admissibility

Is the heuristic admissible? Why or why not?