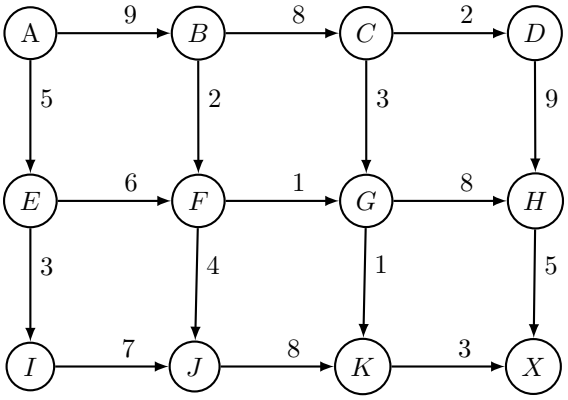
Name_____ Student Number_____

CSCI321, Fall 2017, Pop Quiz #5

On the following map we are trying to find a path from A to X. Paths and their costs are shown as arcs between nodes. Heuristic estimates of the distance from a node to X are shown in the table. Trace one of the following searches showing the contents of the open list at each stage. (Drawing a tree is optional.) Each node in the open list should also be accompanied by its "value," the number that is used to sort it in the queue. Break ties alphabetically, so that if two or more nodes in the open list have the same value, the one that comes first in the alphabet is removed first.

- Uniform cost (Dijkstra's) search
- Best first (greedy) search
- A^* search.



Node	Estimated distance to X
A	20
B	18
C	10
D	9
E	17
F	5
G	4
H	1
I	8
J	2
K	2
X	0