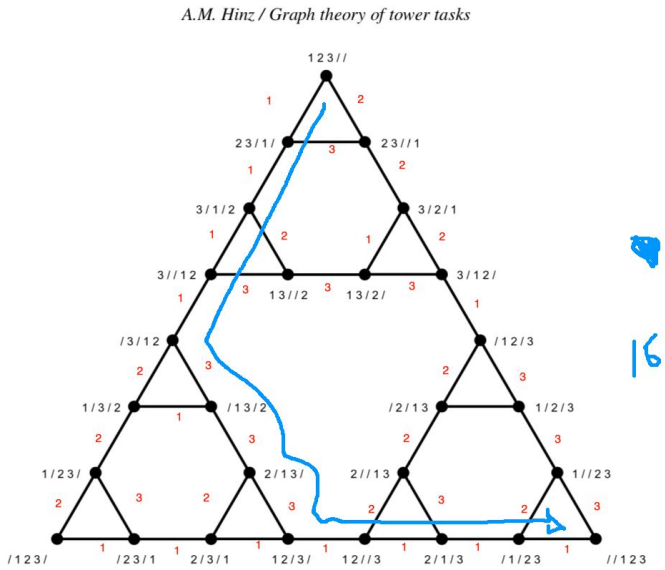
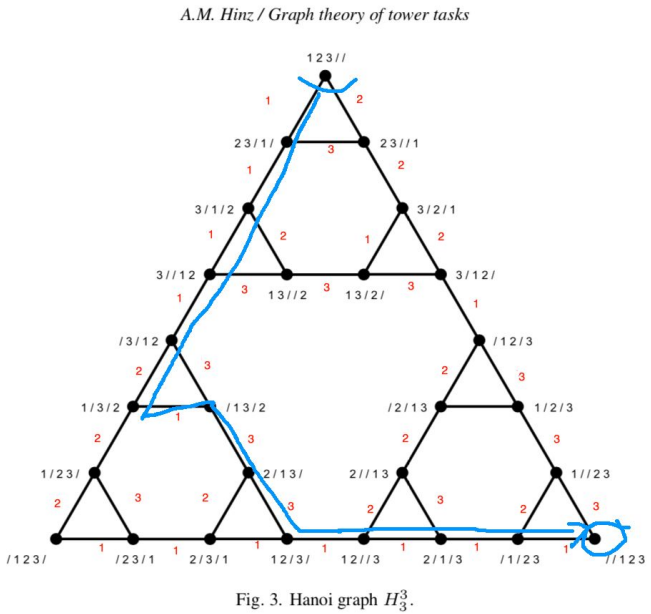
Using Informed Search Algorithms and Heuristics - Ramón Romero - A01700318

1. Assign weight to the arcs in the graph you have modelled in previous homework assignments. Use a Greedy search and a A* search to find the goal in the graph. Since A* is an informed search algorithm, you also have to come up with your own heuristic. Compare the paths between them with those done in previous homework assignments.

 Fig. 3. Hanoi graph H_3^3.	 Fig. 3. Hanoi graph H_3^3.
A* Solution By Choosing the less direct distance to Goal	Greedy Algorithm, Choosing the cheapest and lowest path

**Graph representation retrieved from “Graph Theory of Tower Tasks” [1] ,.

2. Explain what a heuristic:
    a. Gigerenzer, G. (2006)[2], presents the term heuristics as a possible approach or steps to follow when a problem becomes too complex, because of the data or the algorithm for the best solution.In this cases, solutions are find by intuition, statistics, habits or laws of thumb.

3. Search for 2 examples of heuristics for search problems. (The term heuristic is used for other things as well):
    a. Stock Problems, finance based problems which decisions may not be chosen only by simple if conditions and the output is not deterministic
    b. Weather Prediction. Same as the previous the heuristic it is based on previous and depending statements, which not grant a repetitive result.

References:

[1] Hinz, Andreas. (2012). Graph Theory of Tower Tasks. Behavioural neurology. 25. 13-22. 10.3233/BEN-2012-0345

[2] Gigerenzer, G. (2006). Heuristics. In G. Gigerenzer & C. Engel (Eds.),*Heuristics and the law* (pp. 17-44). Cambridge, MA: MIT Press.

[x] S. Russell and P. Norvig, Artificial intelligence, 3rd ed. 2010: Pearson Education,Inc., 2010.