Assignment 2

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CS380 - Artificial Intelligence

1.A) Current Events in AI

We can use Artificial Reality to automate parts of our lives that we otherwise could not have before. Like the artificial fish article, we can use these to automate and monitor / regulate parts of our lives that we don't need to tend to 24/7, thus creating a much more productive society.

1.B) Forward-Backward (Bidirectional) Search

It's much easier to go from Eloise and go up her ancestry tree to Ben Franklin, rather than going down from Ben Franklin to Eloise. This is because at most going up the tree from Eloise, there are 2 possible branches from the nodes going up the tree, where as going down from Ben Franklin there can be any number of children that branch out from the nodes going down.

1.C) Golden Section Search

a.

The maximum is 1

b.

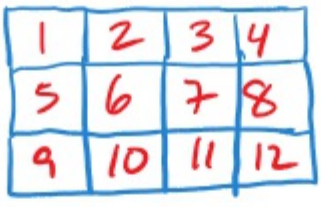
Keep calculating H until the previous H and the current H are within 0.001 difference with one another. Then calculate the value from the values generated.

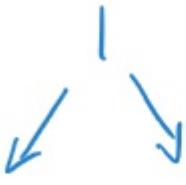
c.

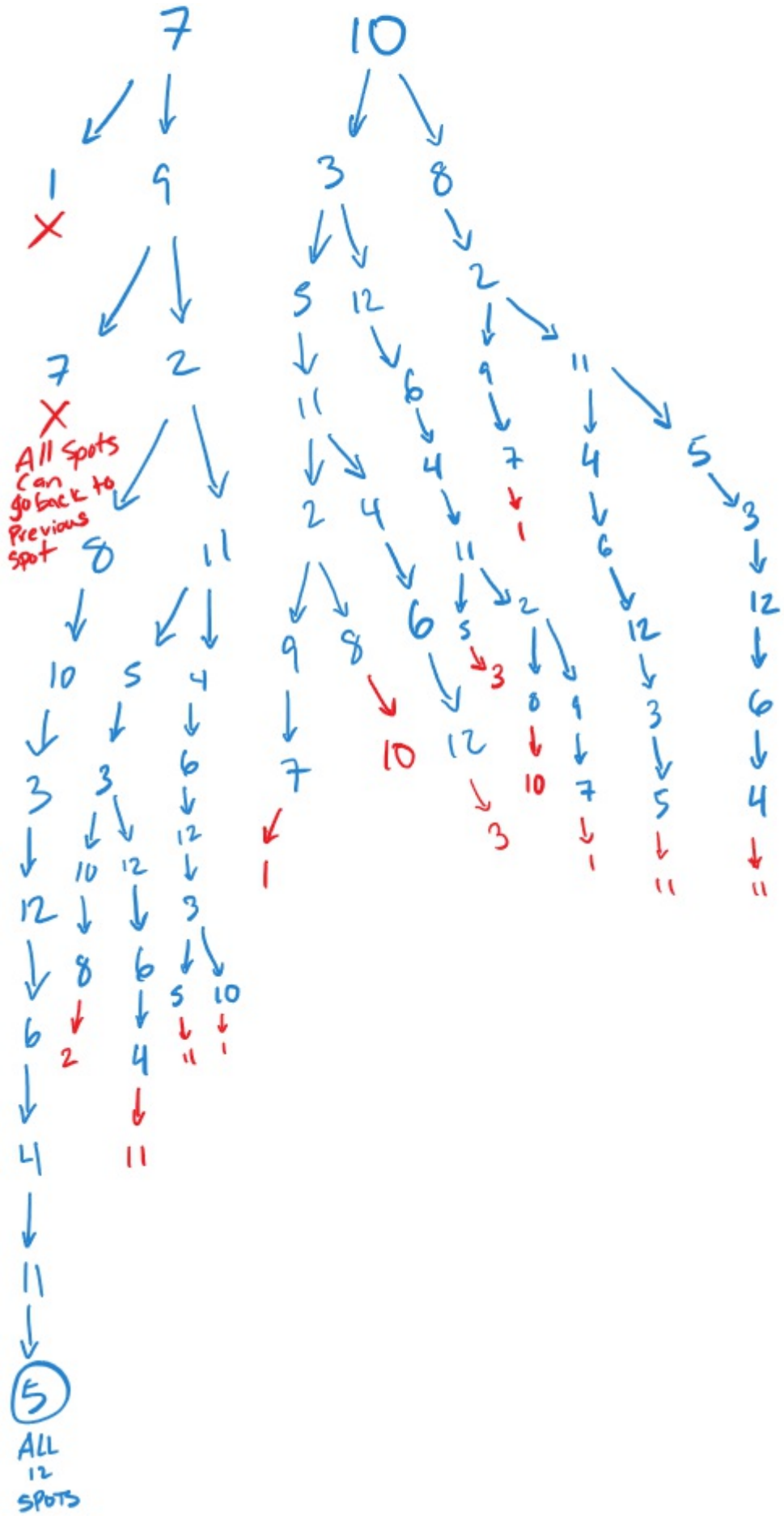
H will gravitate towards the maxima closer towards the upper bound (B).

1.D) A Hard Day's Knight's Tour

a.






7
10
All spots can go back to previous spot
ALL 12 SPOTS

b.

8^25 - 1

c.

1.5 x 10^23

d.

It is much better to use Forward-Backwards search for this problem.