

This homework is due by 5pm on Thursday April 2nd. Please hand it to the CS174 homework box on the second floor of Soda Hall.

1. What would happen to the probability of success of the FastCut algorithm for minimum cuts if instead of two recursive calls of size $n/\sqrt{2}$, the algorithm made two calls of size $n/2$? Give the recurrence and solve it as a function of n . Hint: Try substituting rational values for p .
2. What is the running time of FastCut for a graph with $O(n)$ edges?
3. Let G be a graph with n vertices and m edges, and let T be its minimum spanning tree. How many edges in G are T -heavy?