최적화근사해법
제 3주 과제

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A supplementary lecture note for the book *Approximation algorithms* by V. Vazirani

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4.1 Show that Algorithm 4.3 can be used as a subroutine for finding a k-cut within a factor of $2 - 2/k$ of the minimum k-cut. How many subroutine calls are needed?

4.2 A natural greedy algorithm for computing a multiway cut is the following. Starting with G, compute minimum $s_i - s_j$ cuts for all pairs s_i, s_j that are still connected and remove the lightest of these cuts; repeat this until all pairs s_i, s_j are disconnected. Prove that this algorithm also achieves a guarantee of $2 - 2/k$.