# Homework Assignment #7

Posted on Sunday, 5/15/2016.
Due 10PM, Monday, 5/23/2016.

1. (20 points)
   (a) Exercise 17.4-2.
   (b) Further consider Exercise 17.4-2 as follows. Suppose we change the potential function (17.6) by multiplying the top formula with 4 and the bottom formula with 10. Is the amortized cost of the operation still bounded above by a constant? Calculate the amortized cost to answer this question.

2. (20 points)
   (a) Exercise 17.4-3.
   (b) Further consider Exercise 17.4-3 as follows. Change the threshold for contraction from 1/3 to 1/6. Is there a potential function for which the amortized cost of Table-Delete is bounded above by a constant? If you think the answer is yes, prove your answer. If you think the answer is no, give an explanation.

3. (20 points) Exercise 34.1-1.

4. (20 points) Exercise 34.1-3.

5. (20 points) Exercise 34.1-4.