

## Mini HW #9

Due Time: 2016/12/22 (Thu.) 14:20  
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### Problem 1

We design a dynamic array which doubles its capacity when inserting into a full array. Therefore, if we perform a sequence of insertions from size 0, the cost of the  $i$ th insertion is  $i$  if  $i$  is an exact power of 2, and 1 otherwise. Please calculate the amortized cost per insertion.