Assignment 9

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HANDIN :

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Problem 1

1) Transformation of instances:

The reduction should transform B into an instance of A in such a way that the solution to the instance of A provides a solution to the original instance of B.

2) Preservation of complexity.

The reduction must hold efficiency ($O(n^2)$ or Better) So it does not increase the complexity of solving B through A.

3) Implication: This reduction implies that if A could be solved faster than $\Omega(n^2)$, then B could too. which is a contradiction. Therefore, A has lower bound of $\Omega(n^2)$.