

NTUCSIE ADA 2015  
Mini-Homework 13  
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### **Answer**

1. FALSE. Solving an NP problem in polynomial time does not necessarily guarantee that NPC problems can be reduced to it in polynomial time.
2. TRUE. Since any NP problems can be reduced into an NPC problem in polynomial time, if an NPC problem can be solved in polynomial time, all NP problems can also be solved in such time complexity.
3. TRUE. NP-Hard problems possess the reduction property, so if any of them can be solved in polynomial time, all NP problems can also be solved in polynomial.