Computer Science 405

Summer Quarter, 2015

Second Homework Assignment

**Typeset using LaTeX or the Microsoft Equation Editor**

*Due: Wednesday, July 1*, in class

1. Prove that if and only if
2. (5 points) Prove that
3. (5 points) Prove that .
4. (5 points) Prove that
5. ((5 points) We know that 1 + 2 = 3, 4 + 5 +6 = 7 + 8 and 9 + 10 + 11 + 12 = 13 + 14 + 15. Formulate the implied result in Σ-notation and prove it inductively.
6. Solve the following recurrence by any method you wish: