

Homework 2: NP-Completeness

*Week 4**Mathcamp 2014***Homework Problems**

1. Reduce SAT to 3SAT.
2. Create a circuit family that corresponds to the Boolean function $parity(x_1, \dots, x_n) = \sum x_i \pmod{2}$.
3. Show that any Boolean function $f : \{0, 1\}^n \rightarrow \{0, 1\}$ can be created by an appropriate circuit.