CS313H
Logic, Sets, and Functions: Honors
Fall 2012

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Good Morning, Colleagues

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  - First is mainly definitions - may want to do it this week

Cantor-Bernstein-Schröder Theorem

- If A and B are sets with $|A| \leq |B|$ and $|B| \leq |A|$, then $|A| = |B|$.

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A Bijection That Works

$$f(x) = \begin{cases} 1/2 & \text{if } x = 0 \quad \text{(case 1)} \\ x/(1+x) & \text{if } \exists n \in \mathbb{N}[x = 1/n] \quad \text{(case 2)} \\ x & \text{otherwise} \quad \text{(case 3)} \end{cases}$$