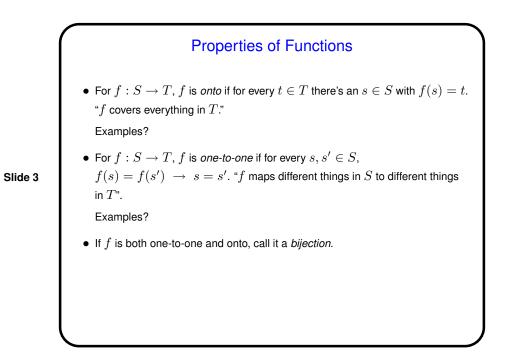
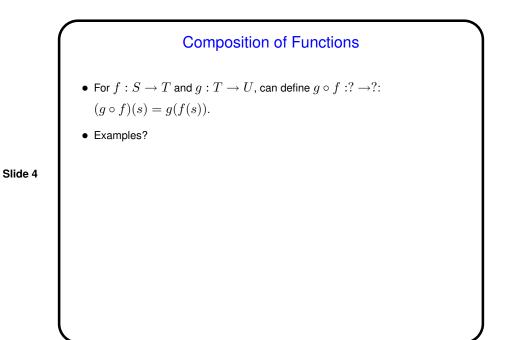
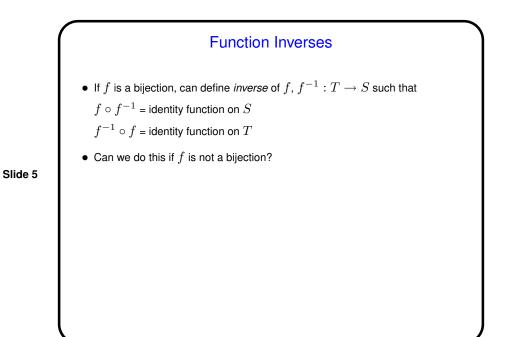


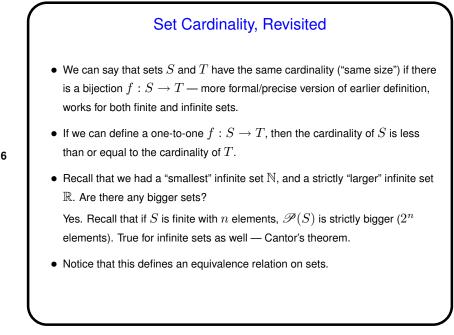
Functions • Definition: $f : S \to T$ is a subset of $S \times T$, such that for every $s \in S$, there's *exactly one* (s, t) in the subset. Write f(s) = t. • Terminology: S is f's *domain*. T is f's *co-domain* (or *range*). • **Examples:** • $f : \mathbb{Z} \to \mathbb{Z}$ defined by $f(x) = x^2$. • $g : \mathbb{N} \to \mathbb{R}$ defined by $g(x) = \sqrt{x}$. • $h : P \to (P \times P)$ (where P is the set of people in the world) defined by h(x) = ((bio?)mother of x, (bio?)father of x). • Idea easily extends to functions of more than one variable.

Slide 2

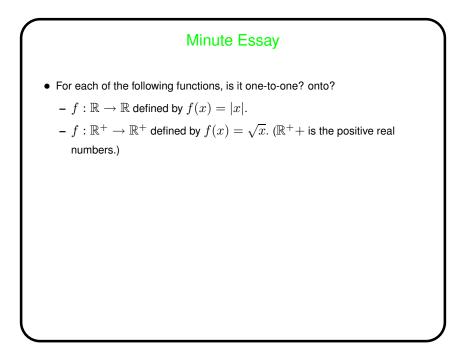








Slide 6



Slide 7