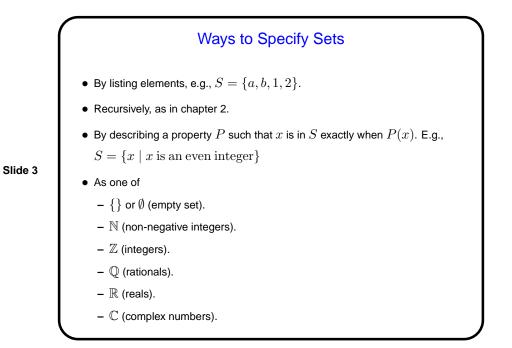
Administrivia

• Reminder: Homework 5 due today. (Accepted without penalty through Friday at 5pm.)

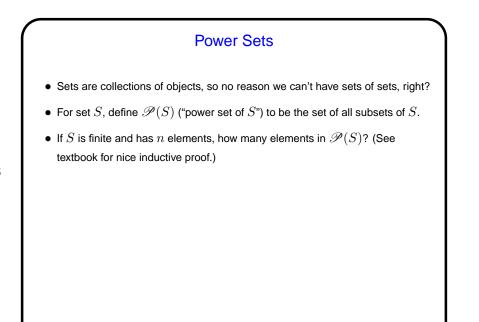
Slide 1

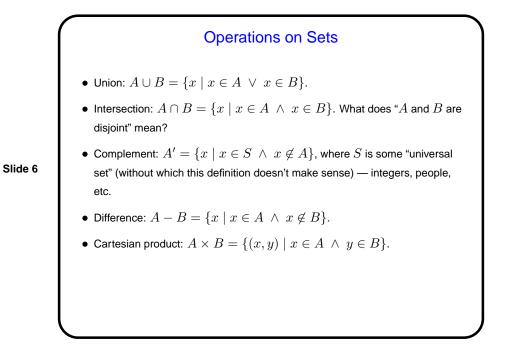
Slide 2

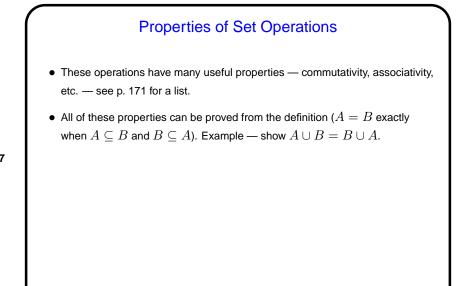
Sets (This will likely be review for most of you!) Definition: Informally, a set is a collection of objects (unordered, no duplicates). Formally — well, formal definitions are surprisingly difficult! (Skim the Wikipedia article "Russell's paradox" for a bit more information.) Some notation — for *x* an object and *A* a set, *x* ∈ *A* means — ? *y* ∉ *A* means — ? We say two sets are equal exactly when they have the same members.

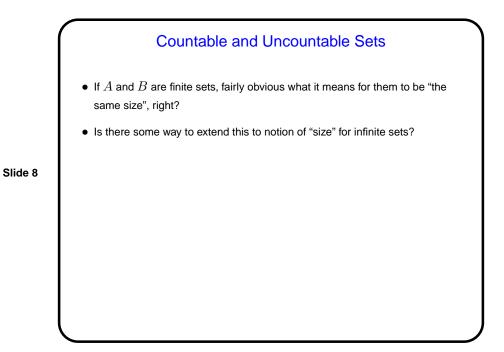


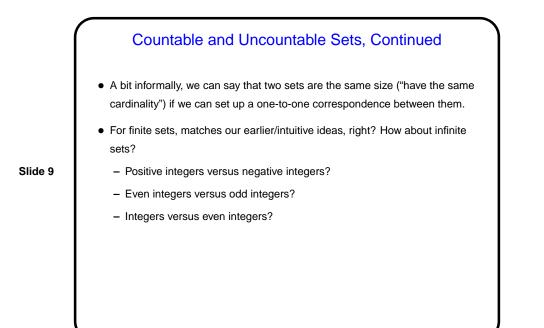
Subsets • $A \subseteq B$ exactly when every element of A is also in B. "Proper" subset is when $A \neq B$. For what sets S is the empty set a subset of S? • If $A \subseteq B$ and $B \subseteq A$, what do we know about A and B?

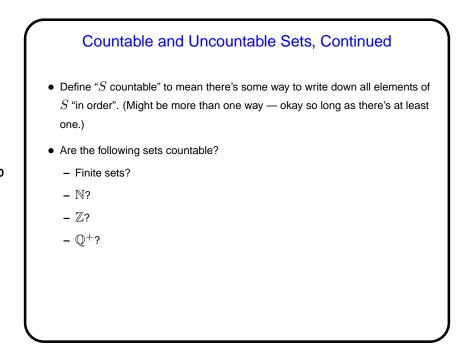


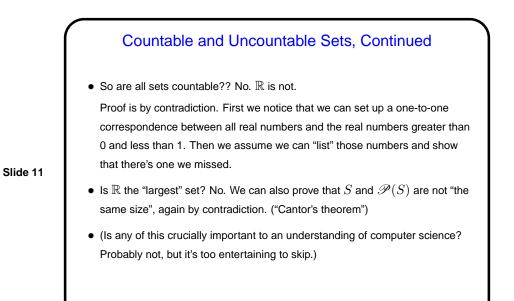












	Minute Essay
le 12	• Suppose you have $A = \{2,4,6,8\}$ $B = \{1,4,9,16\}$ What are $A \cup B$, $A \cap B$, and $A - B$? How many elements are there in $\mathscr{P}(A)$?

