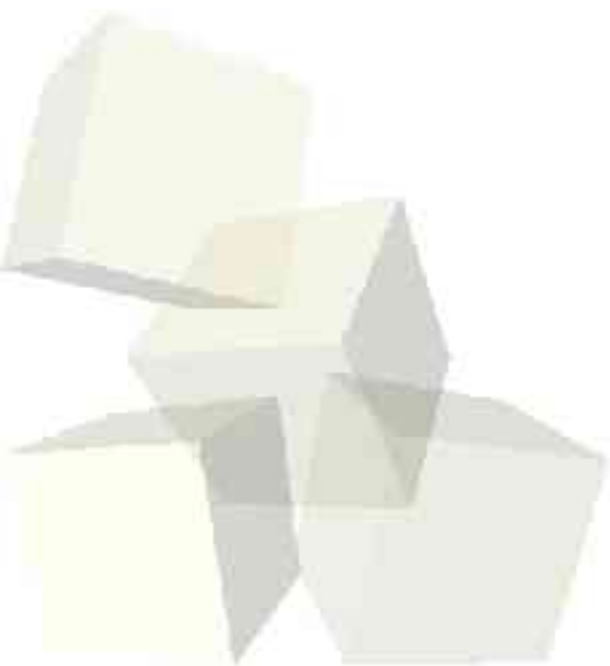




Defining Semantics

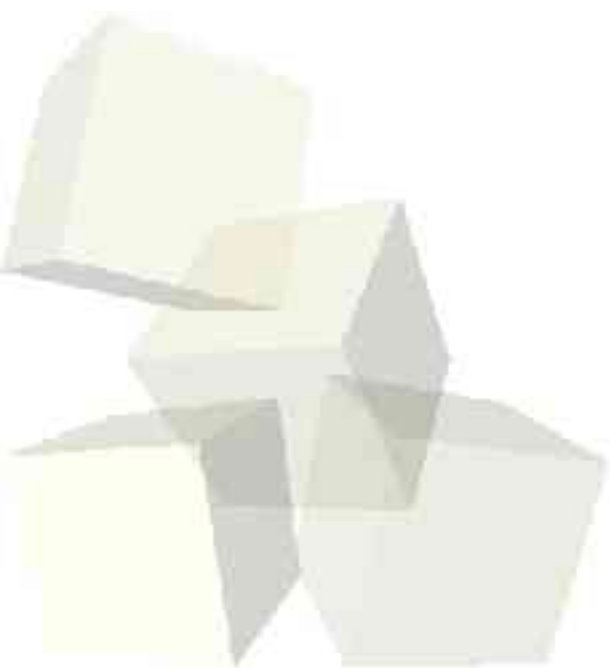
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Opening Discussion

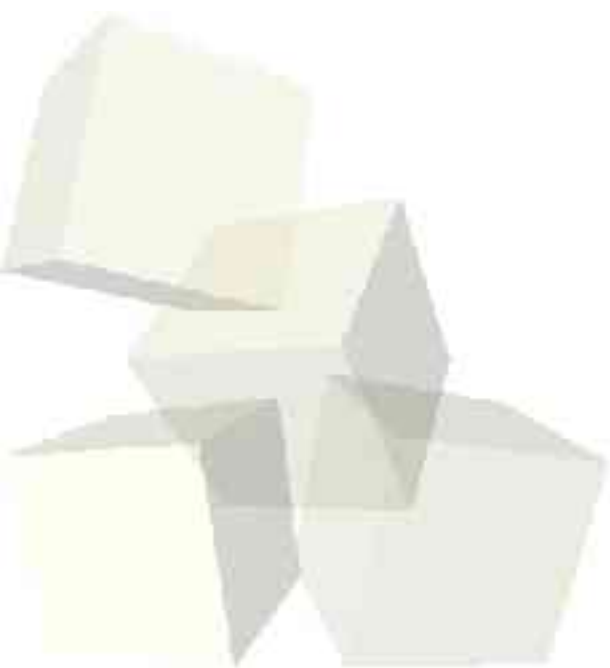
- What did we talk about last class?





Your Discussion Questions

- Let's look over your discussion questions. We'll start by doing the last few from last class.





Static Semantics

- Defining the rules that can't be put in BNF or are inefficient to do that way.
 - ♦ Attribute grammars – symbols can have attributes with them, productions can have attribute computation functions, and predicate functions.
 - ♦ Inherited attributes are passed down, synthesized attributes are passed back up, and intrinsic attributes come from something like the lookup table and only impact the leaves.
 - ♦ For a parse to be correct, all of the predicates have to be true for the computed attributes.



Dynamic Semantics

- Defining the meaning of statements.
 - ◆ Operational semantics – use a simpler language.
 - ◆ Axiomatic semantics – proving programs correct with logic. Go back through the program finding weakest preconditions.
 - ◆ Denotational semantics – defining what programs mean through math.
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