START
You have an **expression**
Special Forms: define, if, cond, quote, and, or, let, lambda, set!
Primitives are anything that is not defined by a lambda.
The Substitution Model
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Does it start with a paren?
No
Is it a Number or is Quoted?
No
Is it a variable?
No
Error: Unbound Variable
Yes
Yes
Yes
Look at the first thing following the open paren.
Its value is itself. In other words, it's **self-evaluating**!
This is **self-evaluating**, its value is stored in memory, look it up!
Is it a **Special Form**?
No
Is it self-evaluating?
No
The first thing is an expression, **Evaluate** it**,** then apply it to the arguments
Yes
Yes
Apply special evaluation rules for the special form
Is it a procedure?
No
Error: Bad Function
Yes
Evaluate the arguments, and apply the primitive to the arguments!
Right number of arguments?
No
Error: Incorrect Number of Arguments
Yes
Yes
Is it a **Primitive**?
No
Evaluate the body, substituting the values for the variables.