START
You have an expression

Does it start with a paren?
Yes

Look at the first thing following the open paren.

Is it a Special Form?
Yes

Apply special evaluation rules for the special form

The first thing is an expression, Evaluate it, then apply it to the arguments

No

Is it self-evaluating?
Yes

This is self-evaluating, its value is stored in memory, look it up!

No

Evaluate the body, substituting the values for the variables.

Is it a Primitive?
Yes

Evaluate the arguments, and apply the primitive to the arguments!

No

Right number of arguments?
Yes

Error: Incorrect Number of Arguments

No

Is it a procedure?
Yes

Error: Bad Function

No

Is it self-evaluating?
Yes

Primitives are anything that is not defined by a lambda.

No

Is it a variable?
Yes

Error: Unbound Variable

No

Is it a Number or is Quoted?
Yes

Special Forms: define, if, cond, quote, and, or, let, lambda, set!

No

Yes