The Curry-Howard correspondence

Haskell	Logic
type variables : a	proposition variables : p
types : Bool	propositions : "Socrates is a man"
function types : $a -> b$	implications (implies) : $p \rightarrow q$
tuples : (a, b)	conjunctions (and) : $p \wedge q$
either : Either a b	disjunctions (or) : $p \vee q$
type inhabitation : id :: $a -> a$	truth : $\vDash p \rightarrow p$

The type is the *what*. The value is the *why*.