RuleDelayed

\[ lhs \to rhs \]

represents a rule that transforms \( lhs \) to \( rhs \), evaluating \( rhs \) only when the rule is used.

RuleDelayed has the attribute HoldRest. You can apply rules using Replace. The assignment \( lhs := rhs \) specifies that the rule \( lhs \to rhs \) should be used whenever it applies. You can use Condition to specify when a particular rule applies. When you enter a rule like \( lhs \to rhs \) or RuleDelayed[\( lhs \), \( rhs \)], Mathematica inserts a “compiled” form of the rule as a third, hidden, element. See page 576. See also Replace, SetDelayed.