Replace

Replace[expr, rules] applies a rule or list of rules in an attempt to transform the complete expression expr.

Example: Replace[x^2, x->a] → a. Replace[x+1, x->a] → 1+x. The rules must be of the form lhs -> rhs or lhs :> rhs. A list of rules can be given. The rules are tried in order. The result of the first one that applies is returned. If none of the rules apply, the original expr is returned. If the rules are given in nested lists, Replace is effectively mapped onto the inner lists. Thus Replace[expr, {{r11, r12}, {r21, ...}, ...}] is equivalent to {Replace[expr, {r11, r12}], Replace[expr, {r21, ...}], ...}. Delayed rules defined with :> can contain ;; conditions. Replace[expr, rules] applies rules only to the complete expression expr. You can use Map and MapAt to apply rules to specific parts of an expression, or you can use ReplaceAll to apply rules to all parts of an expression. See page 207. See also: Rule, Set, AlgebraicRules.