Algorithm Unification; // Chang & Lee
input non-empty set of expressions W;
output θ = MGU(W) or failure;
begin

1. $k := 0; W_0 := W; \theta_0 := \{\ \}$;

2. **if** W_k is singleton **then return** θ_k
   else DS_k := Disagreement_Set(W_k);

3. **if** ($\exists$ var v_k, term $t_k \in DS_k$)[v_k does not occur in t_k]
   // "occurs-check"
   then begin
   $\theta_{k+1} := \theta_k \circ \{v_k/t_k\}$;
   $W_{k+1} := W_k\{v_k/t_k\}$;
   // i.e., apply substitution to each member of W_k
   // N.B.: $W_{k+1} = W\theta_{k+1}$
   $k := k+1$;
   goto 2
   end
   else return failure

end.