

Algorithm Unification (Chang & Lee);
input non-empty set of expressions W ;
output $\sigma = \text{MGU}(W)$ or failure;
begin

1. $k := 0$; $W_0 := W$; $\sigma_0 := \{ \}$;

2. **if** W_k is singleton **then return** σ_k
else $D_k := \text{Disagreement_Set}(W_k)$;

3. **if** $(\exists V_k, t_k \text{ in } D_k)[V_k \text{ does not occur in } t_k]$
then begin

$\sigma_{k+1} := \sigma_k \circ \{t_k/V_k\}$;

$W_{k+1} := W_k\{t_k/V_k\}$;

$k := k + 1$;

goto 2

end

else return failure

end.