CSc 8710 Deductive Databases and Logic Programming
Fall 2000
MGU Algorithm

Input: $S = \{E_1, ..., E_n\}$.
Output: $mgu(S)$
Method:

1. $k := 0$; $\sigma_k = \{\}$

2. If $S\sigma_k$ is a singleton then return σ_k. Otherwise, find D_k the disagreement set of $S\sigma_k$.

3. If there exists variable v and term t in D_k such that v does not appear in t, then $\sigma_{k+1} = \sigma_k.\{v \leftarrow t\}$; Increment k and go to step 2. Otherwise stop; S is not unifiable.