

Assignment 1 - Problem 2:

- **[Ex. 1]** Write a Prolog program for testing whether a given (binary) relation R (on a finite set S) is transitive.
 - - Assume that S and R are defined extensionally (i.e. by enumerating the items). [e.g. $S = \{0, 1\}$ and $R_{\leq} = \{(0,1), (1, 1), (0,0)\}$]
- **[Ex. 2]** Add rules (or modify the program in Ex.1) to compute the transitive closure of a given relation.
- **[Ex. 3 required for 3-person teams]** Add rules to compute the equivalence classes of the relation if it is an equivalence relation.

