1. List all the order pairs in the relation on the set .
   1. Display this relation by directed graph
   2. Find the matrix representation of this relation.
2. Determine whether the relation R defined on the set of integer is reflexive, symmetric, antisymmetric, and/or transitive, where if and only if
   1. x is a multiple of y
3. Let be the “congruent modulo 3” and “congruent modulo 4” relations respectively on the set of integers. Find
4. How many relations are there on a set with n elements that are
   1. Symmetric
   2. Antisymmetric
   3. Asymmetric
   4. Irreflexive
   5. Reflexive and symmetric
5. List all the order pairs in the relation on corresponding to the given matrix.

Also determine whether the relation represented by the matrix are reflexive, irreflexive, symmetric, antisymmetric and/or transitive

* 1. b.