1023-I1-326 Saburo Matsumoto* (smatsumoto@masters.edu), Department of Mathematics, The Master's College, 21726 Placerita Canyon Rd., Santa Clarita, CA 91321. Relations... Human Relations. Preliminary report.

The concept of relation, as a subset of ordered pairs, is one of the most fundamental ideas in mathematics but is explicitly covered only in a relatively few courses such as discrete mathematics, introduction to proof, and set theory. A relation can be reflexive, symmetric, transitive, anti-symmetric, asymmetric, irreflexive, connected, and strongly connected. These eight properties give rise to up to $2^8 = 256$ different types of relations. In order to fully understand and make these properties "more real," students were encouraged to discuss and come up with examples of actual human, inter-personal relations to illustrate these properties and classify each example. For example, the relation "x is married to y" is symmetric and irreflexive (hopefully) but nothing else. In this paper I will discuss some efforts made by students and interesting examples of human relations. (Received September 06, 2006)