Graphical Object Model Notation
6.170 / Software Studio / Fall 2015

\( S \) is a set

\( S \) is an abstract set: all its elements are contained by subsets that extend it

\( S \) is a set with multiplicity \( m \)

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If present, \( m \) must be ? or ! and defaults to ! if missing

\( S1 \) and \( S2 \) are subsets of \( S \)
\( S1 \) and \( S2 \) are disjoint subsets of \( S \)

\( S \) is a relation from \( S \) to \( T \) with multiplicities \( m \) and \( n \)
Maps \( m \) atoms in \( S \) to each atom in \( T \), and each atom in \( S \) to \( n \) atoms in \( T \)
Can be written textually as \( R: S \ m \rightarrow n \ T \)

\( S1 \) is a static subset of \( S \): a member of \( S \) cannot be in \( S1 \) at some time and not in \( S1 \) (but still in \( S \)) at some other time

**Multiplicity symbols**
- * any number (default)
- ? zero or one
- ! exactly one
- + one or more