Graphical Object Model Notation
6.005 / Elements of Software Construction / Fall 2008

- $S$ is a set
- $S$ is an abstract set: all its elements are contained by subsets that extend it
- $S_m$ is a set with multiplicity $m$
  - if present, $m$ must be 0 or 1 and defaults to 1 if missing

$S_1$ and $S_2$ are subsets of $S$, and are disjoint; no label means extends

$R$ 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 $T$
Corresponds to the textual constraint $R: S \rightarrow n T$
$R$ may be any relational expression

$R$ is a ternary relation from $A$ to $S$ to $T$
for each atom $a$ in $A$, $a.R$ is a relation with multiplicities $m$ and $n$
Corresponds to the textual constraint all $a : A | a.R : S \rightarrow n T$

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