The second type of binary relationship is one to many (1:N), in which an entity of one type can be related to many entities of another type.
In a E-R diagram of a one-many relationship between professors and students, in the relationship, PROFESSOR is related to the many STUDENTs that he or she advises. The terms **parent** and **child** are sometimes applied to relations in 1:N relationships. The parent relation is on the *one* side of the relationship, and the child relation is on the *many* side. PROFESSOR is the parent entity, and STUDENT is the child entity.

Figure shows two other one- to-many relationships. In figure, a DORMITORY entity corresponds to many STUDENT entities, but a STUDENT entity corresponds to one DORMITORY. Furthermore, a dormitory does not need to have any students assigned to it, nor is a student required to live in a dormitory.
Also in figure, a CUSTOMER is related to many APPOINTMENT entities, and a particular APPOINTMENT corresponds to only one CUSTOMER. Moreover, a CUSTOMER may or may not have an APPOINTMENT, but every APOINTMENT must correspond to a CUSTOMER.

Representing 1:N relationships is simple and straightforward. First each entity is represented by a relation, and then the key of the relation representing the parent entity is placed in the relation representing the child entity. Thus, to represent the ADVISES relationship of figure, we place the key of PROFESSOR, ProfessorName, in the STUDENT relation.