TABLE 2.1 Summary of the Basic ER Modeling Concepts

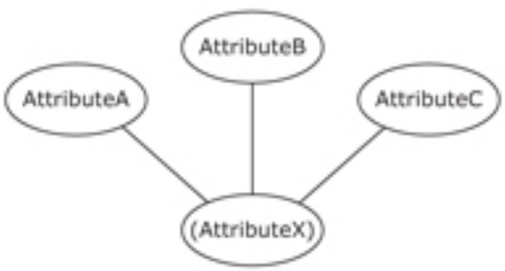
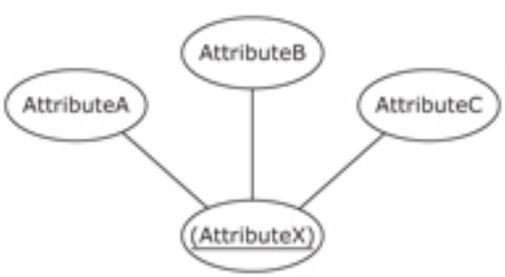
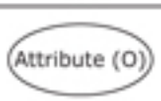
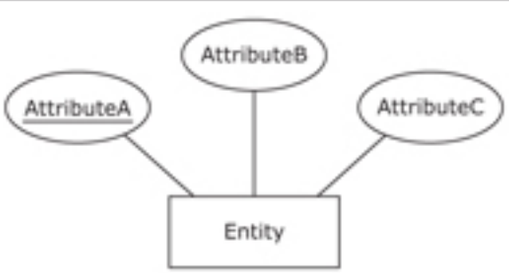
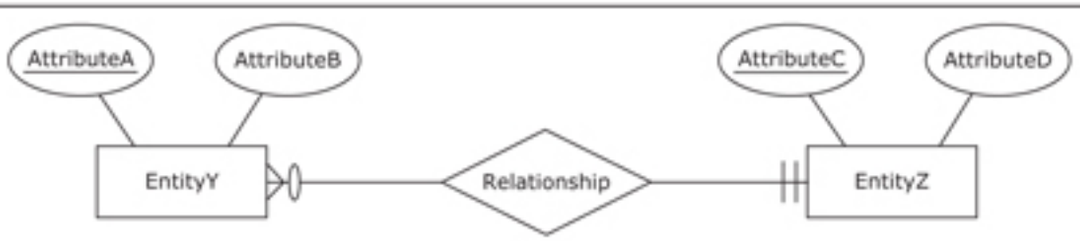
Concept	Graphical Presentation
Regular Attribute	
Unique Attribute	
Composite Attribute	
Composite Unique Attribute	
Multivalued Attribute	
Derived Attribute	
Optional Attribute	
Entity with Attributes Notes: Each entity must have at least one unique attribute. Within one entity, each attribute name is different. Within one ER diagram, each entity name is different	
Relationship	

TABLE 2.1 Summary of the Basic ER Modeling Concepts (*Continued*)

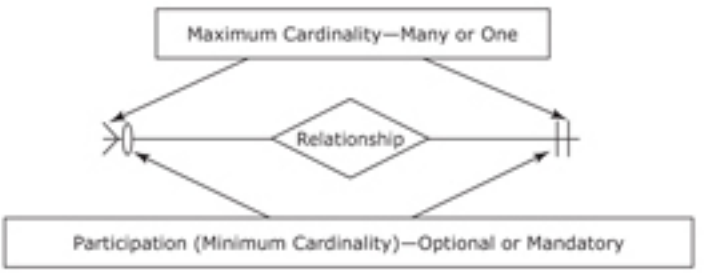
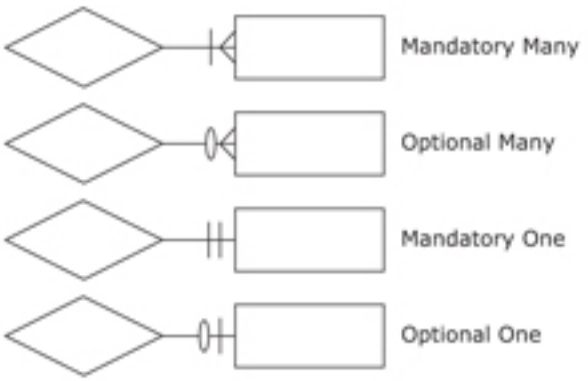
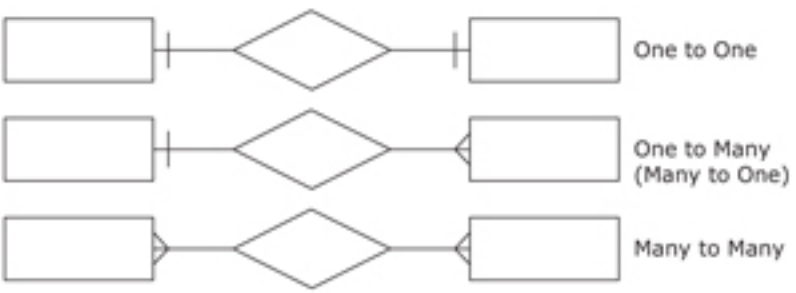
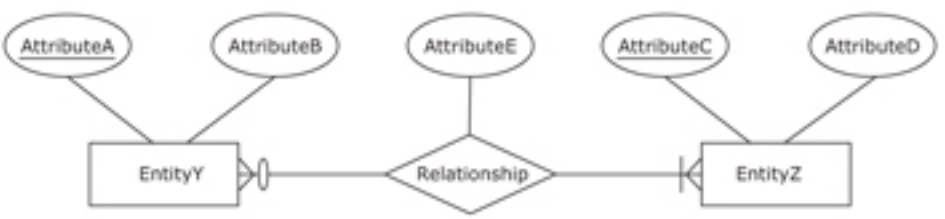
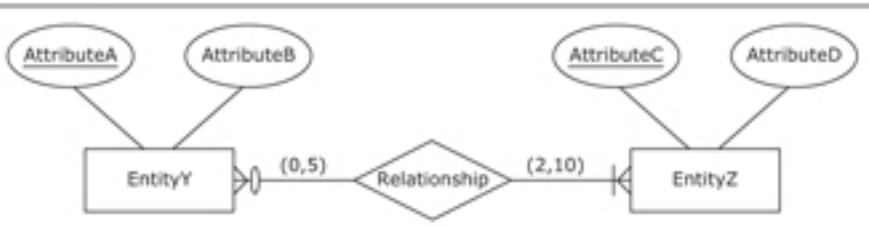
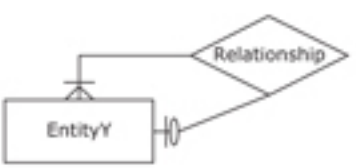
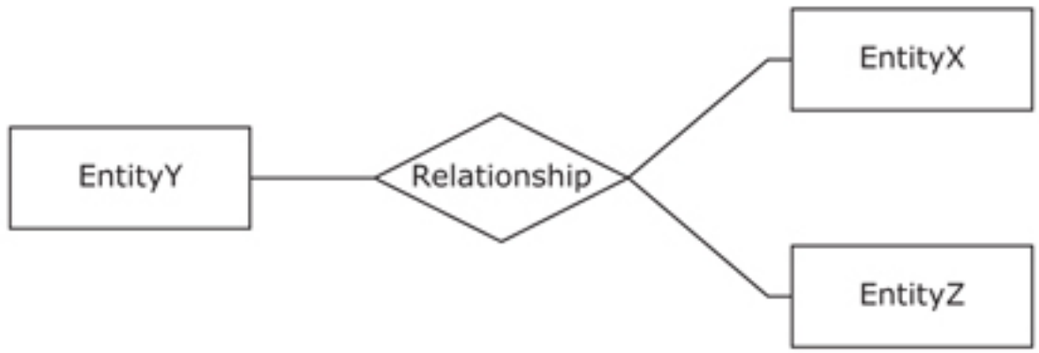
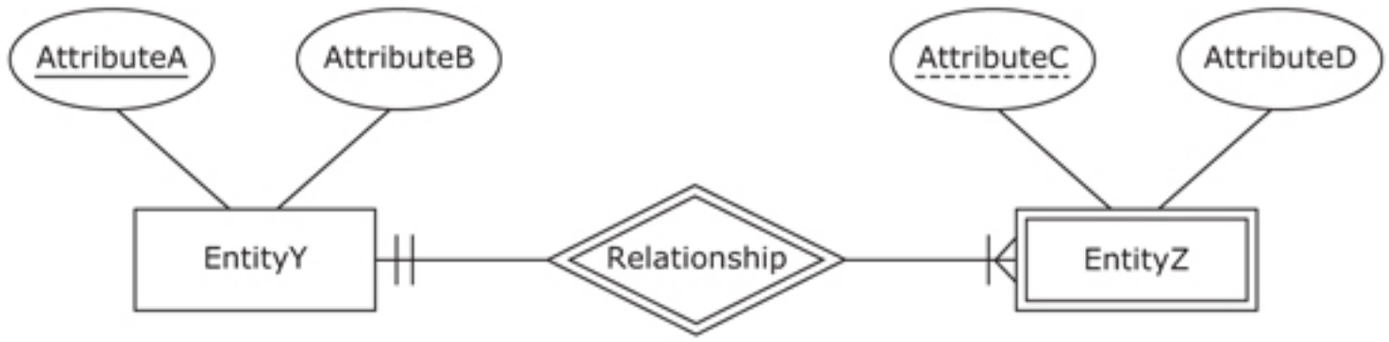
Concept	Graphical Presentation
Cardinality Constraints	
Four Possible Cardinality Constraints	
Three Types of Relationships (Maximum Cardinality-Wise)	
Relationship with an Attribute Note: Applicable for many-to-many relationships	
Relationship with Specific Minimum and Maximum Cardinalities	
Unary Relationship Degree of a Relationship: 1 (one entity involved)	
Binary Relationship Degree of a Relationship: 2 (two entities involved)	

TABLE 2.1 Summary of the Basic ER Modeling Concepts (*Continued*)

Concept	Graphical Presentation
Ternary Relationship Degree of a Relationship: 3 (three entities involved) Notes: Mostly applicable as many-to-many-to-many relationships. Ternary relationships are rare (relationships of a degree higher than 3 are even rarer).	
Weak Entity Notes: Always associated with its owner via an identifying relationship (which is either 1:M or 1:1). If identifying relationship is 1:M, then weak entity must have a partially unique attribute.	
Associative Entity Note: Alternative method for depicting M:N relationships; particularly useful for depicting ternary relationships.