

Quatrani, T. (1998) *Visual Modeling with Rational Rose and UML*, Addison-Wesley, Reading, MA.

Rumbaugh, J., Blaha, M., Premerlani, W., Eddy, F. and Lorensen, W. (1991) *Object-Oriented Modeling and Design*, Prentice-Hall, Englewood Cliffs, NJ.

Stevens, P., with Pooley, R. (2000) *Using UML. Software Engineering with Objects and Components* (updated edition), Addison-Wesley, Harlow.

Quick check questions

You can find the answers to these in the chapter.

- a Developing systems using a structured approach can result in problematic software. List three problems associated with the structured approach.
- b List four qualities that are desirable in a software construct.
- c What is meant by the term *seamless development*?
- d What is the difference between a class and an object?
- e What is the difference in the UML diagrammatic notation for a class and an object?
- f What do we mean when we refer to the behaviour of an object?
- g How does the state of an object affect its behaviour?
- h What is meant by the term *encapsulation*?
- i How do objects communicate?
- j What do we mean when we talk about the public interface of an object?
- k What is instantiation?
- l List three types of relationships between classes. Briefly describe each.
- m Why might you decide to model one class as a subclass of another?
- n What is an abstract class? Why do we use them?
- o What is the difference between an operation and a method? What is the significance of this for polymorphism?
- p What is dynamic binding?
- q What is the difference between aggregation and composition?