Figure 10.12   *Class diagram for order processing*

10.3   This question is based on Figure 10.12.

a   Draw a sequence diagram to model the following order processing behaviour:

An :OrderUI sends a prepare() message to an :Order; the :Order sends a prepareLine() message to each :OrderLine; the :OrderLine must check if there is sufficient stock of its :Product and adjust the stock level as appropriate.

b   Each time the stock level is decreased, the :Product checks whether it needs to reorder. It does this by comparing the stockLevel with reorderLevel. If it needs to reorder, the :Product sends a message to the :Supplier. How would you adjust the class diagram in Figure 10.12 and your sequence diagram to include this information?

10.4   For all the message passing specified in the description of the sequence diagram in Figure 10.11, work out how the sending object knows the object identifier of the recipient object.