Problem 1

1 The basic problem

Suppose an object needs to react differently to various messages depending on its state – that is, it has various modes. The differences are as significant as though the object had changed class.

Consider, for example, the case of a class DrawingTool which must react differently to mouseclicks depending on whether the user is in the process of using a rectangle-drawing tool, a selection tool or an enlargement tool.

2 An initial solution...

3 Criteria for a good solution

- It should be easy to add an extra mode or remove one.

- It should be easy to understand the class's code – for example, to understand what behaviour the modes consist of.

4 A better solution...