

Simula:

```
begin

  class Shape;
  begin
    procedure talkToMe;
    begin
      OutText("But I am a Shape first and foremost");
      OutImage
    end of getDefault;
  end;

  Shape class Rectangle(recName,width,height);! class with 3
parameters;
  Text recName;Real width, height;! Specification of parameters;
  begin
    Real area, perimeter; ! these are our attributes;

    procedure initialize; ! method definition;
    begin
      area := width * height;
      perimeter := 2*(width + height)
    end of initialize;

    procedure displayYourself; ! a Method;
    begin
      OutText(" I am a rectangle: "); OutText(recName);
      OutImage;
      OutText("      width: "); OutFix(width,2,4);
      OutText("      height: "); OutFix(height,2,4);
      OutText("      area: "); OutFix(area,2,6);
      OutText("      perimeter: "); OutFix(perimeter,2,6);
      OutImage
    end of displayYourself;

    initialize; ! body of Rectangle;
    OutText("A Rectangle has been created and initialized.");
  OutImage;
    displayYourself;
  end of Rectangle;

  Rectangle class Square;
  begin
    height := width;!body of Square;
    initialize;
    OutText("A Square has been created and initialized");
  OutImage;
  end of Square;

  !Variables declared in the prefixed block: ;

  ref(Rectangle) R1;
  ref(Square) S1;
```

```
!Block body - here the program starts: ;

OutText("Creating a new Rectangle"); OutImage;
r1 :- New Rectangle("Rectangle r1",5,4); OutText("Creating a new
Square"); OutImage;
s1 :- New Square("Square s1",6,6);
OutText("Calling displayYourself on the new Square"); OutImage;
s1.displayYourself;
OutText("Calling talkToMe on the new Square"); OutImage;
s1.talkToMe;
OutImage;
end;
```