LUNDS TEKNISKA HÖGSKOLA   Institutionen för datavetenskap
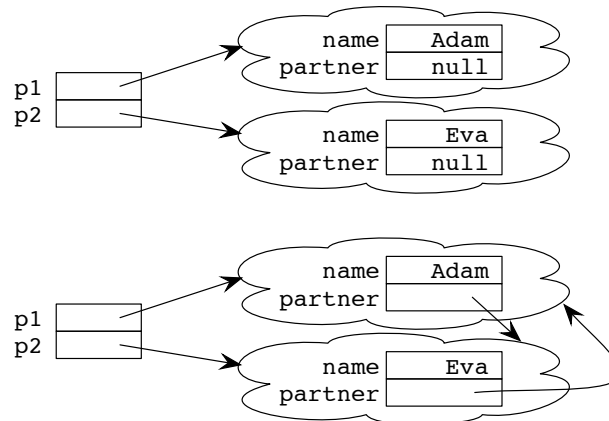
Lösningsförslag, kontrollskrivning 1 PTDC

2011–10–12

1. Minnessituation före och efter anropet:

2.
```java
public class Line {
    private int x1;
    private int y1;
    private int x2;
    private int y2;

    public Line(int x1, int y1, int x2, int y2) {
        this.x1 = x1;
        this.y1 = y1;
        this.x2 = x2;
        this.y2 = y2;
    }

    public double getLength() {
        return Math.hypot(x1 - x2, y1 - y2);
    }

    public void draw(SimpleWindow w) {
        w.moveTo(x1, y1);
        w.lineTo(x2, y2);
    }

    public void move(int dx, int dy) {
        x1 = x1 + dx;
        y1 = y1 + dy;
        x2 = x2 + dx;
        y2 = y2 + dy;
    }
}
```

```
3. public class LineTest {
       public static void main(String[] args) {
           SimpleWindow w = new SimpleWindow(400, 400, "Lines");
           Line vertical = new Line(0, 0, 0, w.getHeight());
           Line horizontal = new Line(0, 0, w.getWidth(), 0);
           for (int i = 0; i < 10; i++) {
               vertical.move(10, 0);
               vertical.draw(w);
               horizontal.move(0, 10);
               horizontal.draw(w);
           }
       }
   }
```