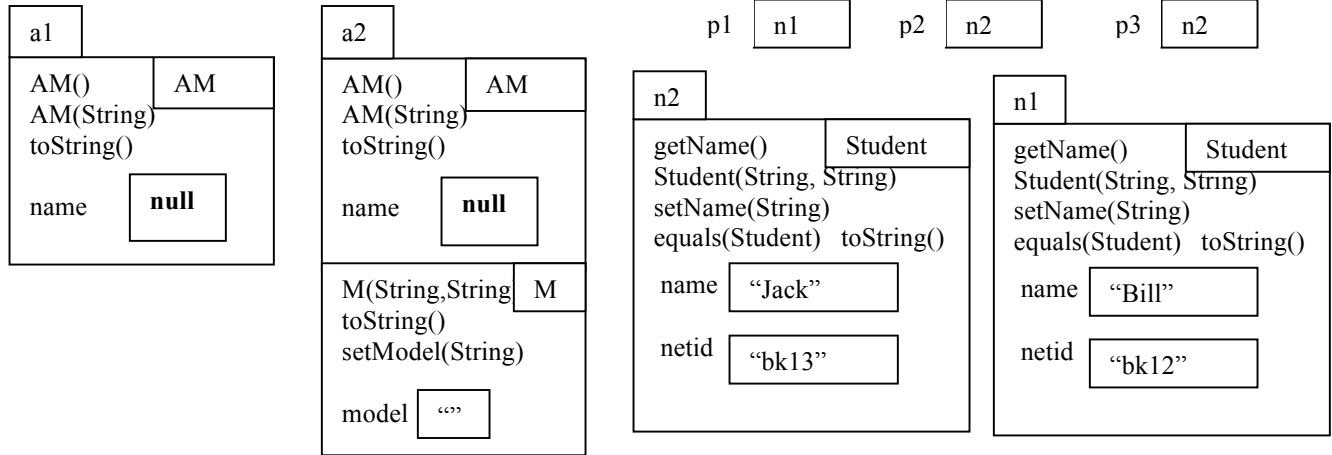


1(a) We abbreviate “Automaker” and “Model” by “AM” and “M”. 3.



1(b) /** An instance is a variation of a model, with a price */

```
public class ModelVariation extends Model {
    private double price; // price of this variation of model
    /** Constructor: an instance with automaker m,
        model mo, and price p */
    public ModelVariation(String m, String mo, double p) {
        super(m, mo);
        price = p;
    }
    /** = a representation of this model */
    public String toString() {
        return super.toString() + ", price " + price;
    }
}
```

2(a) /** Number of instances of Automaker that have been created. */

```
private static int noOfAutomakers = 0;
/** Constructor: automaker named s */
public Automaker(String s) {
    name = s;
    noOfAutomakers = noOfAutomakers + 1;
}
/** Constructor: automaker with unknown name "" */
public Automaker() {
    name = "";
    noOfAutomakers = noOfAutomakers + 1;
}
```

2(b) this(m, "");

2(c) return super.toString();

```
4. int k = d.indexOf(" ");
String month = d.substring(0, k);
d = d.substring(k + 1);

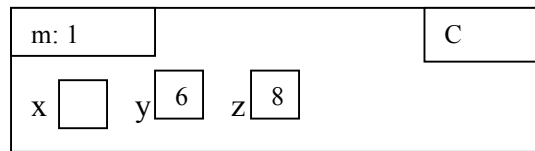
k = d.indexOf(",");
String day = d.substring(0, k);
String year = d.substring(k + 1);

return year + "." + month(month) + "." + day;
```

5(a) A parameter is a variable declared in the header of a method (within the parentheses). An argument is an expression that occurs in a call of a method.

5(b) A local variable is a variable that is declared in the body of a method. Its scope begins at its declaration and continues until the end of the block in which it is declared.

5(c)



5(d) The first step of executing the call is to draw the frame for the call. This includes drawing or creating the parameters and the local variables. Therefore, x is created during the first step of executing the call.