

Problem 1

Create three classes:

- **CalculatingMachine** with a single constructor taking a name (**String**). The class defines also a method

```
public String calculate(double x, double y)
```

which calculates the sum of its arguments and returns a string with the name of the machine and the result of the addition.

Add a static method

```
public static void printRes(CalculatingMachine[] a,
                           double x, double y)
```

taking an array of calculataing machines and arguments **x** and **y** — the functions prints the results of calculations with these arguments for each machine from the array.

- **Calculator** extending **CalculatingMachine** and overriding the **calculate** method. The method gets the result of addition by invoking **super.calculate** and adds the result of subtraction.
- **Computer** extending **Calculator** and overriding the **calculate**. The method gets the result of addition and subtraction by invoking **super.calculate** and adds the results of multiplication and division.

The following program

[download Computers.java](#)

```
public class Computers {
    public static void main (String[] args) {
        CalculatingMachine[] arr = {
            new Computer("Cray"),
            new CalculatingMachine("Abacus"),
            new Calculator("HP")
        };
        CalculatingMachine.printRes(arr, 21, 7);
    }
}
```

should print something like

```
Cray(21.0,7.0) -> '+':28.0; '-':14.0; '*':147.0; '/':3.0
Abacus(21.0,7.0) -> '+':28.0
HP(21.0,7.0) -> '+':28.0; '-':14.0
```