

**2D Arrays: class ExperimentalFarm – Test Code****Free Response Question 1**

The following is code you can use to test your `ExperimentalFarm` and `Plot` classes, and the output that is expected. This test code requires that you make a `toString` method for each of those two classes.

```
public class TestExperimentalFarm {
    public static void main(String[] args) {
        Plot[][] p = {
            { new Plot("corn",20), new Plot("corn",30), new Plot("peas",10) },
            { new Plot("peas",30), new Plot("corn",40), new Plot("corn",62) },
            { new Plot("wheat",10), new Plot("corn",50), new Plot("rice",30) },
            { new Plot("corn",55), new Plot("corn",30), new Plot("peas",30) },
        };

        ExperimentalFarm f = new ExperimentalFarm(p);
        System.out.println(f);
        System.out.println("Highest corn yield: " +
            f.getHighestYield("corn"));
        System.out.println("Highest pea yield: " +
            f.getHighestYield("peas"));
        System.out.println("Highest wheat yield: " +
            f.getHighestYield("wheat"));
        System.out.println("Highest rice yield: " +
            f.getHighestYield("rice"));
        System.out.println("Highest millet yield: " +
            f.getHighestYield("millet"));
        System.out.println();

        System.out.println("Same Crop:");
        for(int i=0; i<p[0].length; i++) {
            System.out.println(" Column " + i + ": " + f.sameCrop(i));
        }
        System.out.println();

        System.out.println("Highest Yield Corn is farmPlot[1][2]: " +
            (f.getHighestYield("corn") == p[1][2]));
    }
}
```

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Expected output:

```
corn(20) corn(30) peas(10)
peas(30) corn(40) corn(62)
wheat(10) corn(50) rice(30)
corn(55) corn(30) peas(30)

Highest corn yield: corn(62)
Highest pea yield: peas(30)
Highest wheat yield: wheat(10)
Highest rice yield: rice(30)
Highest millet yield: null

Same Crop:
  Column 0: false
  Column 1: true
  Column 2: false

Highest Yield Corn is farmPlot[1][2]: true
```