

Assignment 7

Question 1

Write a class called **MyPoint** to represent a point with **x**- and **y**-coordinates. The class must contain:

- Two **private** instance variables **x** and **y** of type **double**.
- A constructor that constructs a point with specified coordinates.
- A no-argument constructor that creates the point (0, 0) – **this constructor must call your previous constructor**.
- Getter methods for the instance variables **x** and **y**.

Write a **main** program that creates two points **(0, 0)** and **(10, 30.5)**.

Question 2

Consider the following code,

```
MyPoint p = new MyPoint(4, 5);
```

Carefully explain **exactly** and **in detail** how the point **p** is constructed and assigned.

Draw pictures showing the stages of object construction (as I did in class), describe how the constructor is chosen, what **this** refers to, and finally what **p** refers to.

Question 3

Consider the following code,

```
MyPoint p = new MyPoint();
```

Carefully explain **exactly** and **in detail** how the point **p** is constructed and assigned.

Draw pictures showing the stages of object construction (as I did in class), describe how the constructor is chosen, what **this** refers to, and finally what **p** refers to.