Name: ___________________________  J Number: ___________________________

1. (2 pts) What is printed by the following code?

```java
public class Question1 {
    public static void initialize(int num) {
        num = 7;
    }
    public static void main(String[] args) {
        int number = 1;
        initialize(number);
        System.out.println(number);
    }
}
```

2. (2 pts) The _________________ of a method in Java is a combination of its name and parameter list, and ________________ involves two or more methods in the same program with the same name but different parameter lists.

3. (2 pts) Suppose you are trying to convert the decimal number 57 to binary. How would you use a method in the Math class to find the largest power of 2 less than or equal to 57?

4. (2 pts) What does it mean for an object to become garbage? How can a programmer force garbage collection to take place?

5. (2 pts) Suppose we want to sort an array of ints using the Selection Sort. Fill in the missing code.

```java
public class Question5 {
    public static void swap(int[] array, int firstIndex, int secondIndex) {
        int temp = array[firstIndex];
        array[firstIndex] = array[secondIndex];
        array[secondIndex] = temp;
    }
    public static void sort(int[] array) {
        // Fill in the missing code here
    }
    public static void main(String[] args) {
        int[] numbers = {22, 14, 18, 5, 6, 12, 10};
        sort(numbers);
    }
}
```