1) What does the following code print when called with i=1234, j=5?

```java
public int compute(int i, int j) {
  // base case
  if (i < j) return i;
  // recursive case
  return compute(i - j, j);
}
```

2) What does the following code below print when called with value = 10 ?

```java
public static int compute(int value) {
        // base case
        if (value == 0) return 0;
        // compute term
        int term = value ;
        // recursive case
        return term + compute(value - 2);
}
```

3) What does the following code below print when called with value = 9 ?

```java
public static int compute(int value) {
        // base case
        if (value == 0) return 0;
        // compute term
        int term = value ;
        // recursive case
        return term + compute(value - 2);
}
```

4) What does the following code below print when called with d = 100.0 and n = 6?

```java
public static double compute(double d, int n) {
        // base case
        if (n == 0) return 0.0;
         // compute term
        double term = d;
        // recursive call
        return term + compute(d / 10.0, n - 1);
}
```

5) What does the following code below print when called with number = 13 and base = 2?

```java
public static void convert(int number, int base) {
        int remainder = number % base;
        int quotient = number / base;
        if (quotient > 0) convert(quotient, base);
        System.out.print(remainder);
}
```

6) What does the following code below print when called with s = "aabbccddeeff"?

```java
public static String munge(String s) {
        if (s == null || s.length() <= 1)  // base case
                return s;
        else if (s.charAt(0) == s.charAt(1))
                return munge(s.substring(1, s.length()));
        else
                return s.charAt(0) + munge(s.substring(1, s.length()));
}
```

7) What does the following code print when i = 1?

```java
public static void rec1 (int i) {
        if (i==0)
                System.out.print(i + " ");
        for (int j=0; j<2; j++) {
                rec1(i-1);
                rec1(i-1);
        }
}
```

8) What does the following code print when i = 1?

```java
public static void rec2 (int i) {
        if (i==0) {
                System.out.print(i + " ");
        } else {
                for (int j=0; j<2; j++) {
                        rec2 (i-1);
                        rec2 (i-1);
                }
        }
}
```

9) What does rec return when list = {1,3,5,7,9} ?

```java
public int rec(int [] list){
        return rec3(list, 0);
}
public int rec3(int [] list, int start){
        if (start == list.length - 1) {
                return list[start];
        } else {
                return Math.max(list[start], rec3(list, start + 1));
        }
}
```