1.   Expression   Value
        ----
        5 * 6 - (4 + 3) * 2 - 2 * 3   10
        208 / 20 / 4 + 12 / 10.0 + 0.4 * 2   4.0
        8 - 2 + "8 - 2" + 8 * 2 + 8   "68 - 2168"
        4 * 5 % 6 + 297 % 10 + 4 % 8   13
        13 / 2 * 3.0 + 5.5 * 3 / 2   26.25

2. Parameter Mystery. The program produces the following output.

        table and chair like notes
        notes and notes like x
        notesx and notestable like notesx
        chair and boring like today

3.   Method Call   Output Produced
        ----
        ifElseMystery(6, 5);   5 15
        ifElseMystery(4, 6);   7 5
        ifElseMystery(9, 5);   7 15
        ifElseMystery(3, 6);   5 5
        ifElseMystery(2, 7);   8 6
        ifElseMystery(1, 3);   3 13

4.   Method Call   Output Produced
        ----
        mystery(5);   0 0
        mystery(8);   1 8
        mystery(346);   2 64
        mystery(265408);   3 804

5.   x > 0   x == 0   y == 0
             +--------------------+--------------------+--------------------+
     Point A | always | never | always |
             +--------------------+--------------------+--------------------+
     Point B | always | never | sometimes |
             +--------------------+--------------------+--------------------+
     Point C | never | never | never |
             +--------------------+--------------------+--------------------+
     Point D | never | sometimes | never |
             +--------------------+--------------------+--------------------+
     Point E | never | always | never |
             +--------------------+--------------------+--------------------+

6. One possible solution appears below.

```java
public static void testFairCoin(Scanner console) {
    int heads = 0;
    int total = 0;

    System.out.print("next flip? ");
    String flip = console.next();
    while (!flip.equals("done")) {
        if (flip.equals("heads")) {
            heads++;
        }
        total++;

        System.out.print("next flip? ");
        flip = console.next();
    }

    double pct = 100.0 * heads / total;
    System.out.println("was heads " + pct + "% of the time);
}
```

7. One possible solution appears below.

```java
public static void printSum(int n, int low, int high) {
    System.out.println("sum " + n + " numbers " + low + " to " + high);
    Random r = new Random();
    int next = r.nextInt(high - low + 1) + low;
    int max = next;
    int sum = next;
    System.out.print(next);
    for (int i = 2; i <= n; i++) {
        next = r.nextInt(high - low + 1) + low;
        System.out.print(" + " + next);
        sum = sum + next;
        if (sum > max) {
            max = sum;
        }
    }
    System.out.println(" = " + sum);
    System.out.println("max = " + max);
}
```

8. Programming. Two possible solutions appear below:

```java
public static double tallyVotes(Scanner input) {
    System.out.print("vote? ");
    String vote = input.next();
    double result = 0;
    int total = 0;
    while (!vote.equals("q")) {
        if (vote.equals("y")) {
            result++;
        }
        total++;
        System.out.print("vote? ");
        vote = input.next();
    }
    result = result / total * 100;
    System.out.println("total votes = " + total);
    System.out.println("result = " + result + "%");
    return result;
}

public static double tallyVotes(Scanner input) {
    String vote = "";
    int yes = 0;
    int no = 0;
    while (!vote.equals("q")) {
        System.out.print("vote? ");
        vote = input.next();
        if (vote.equals("y")) {
            yes++;
        } else if (vote.equals("n")) {
            no++;
        }
    }
    int total = yes + no;
    double result = 100.0 * yes / total;
    System.out.println("total votes = " + total);
    System.out.println("result = " + result + "%");
    return result;
}
```

9. Two possible solutions appear below.

```java
public static String undouble(String s) {
    String result = "";
    if (s.length() > 0) {
        char last = s.charAt(0);
        result += last;
        for (int i = 1; i < s.length(); i++) {
            if (s.charAt(i) != last) {
                result += s.charAt(i);
            }
            last = s.charAt(i);
        }
    }
    return result;
}

public static String undouble(String s) {
    String result = "";
    if (s.length() > 0) {
        result = s.substring(0, 1);
        for (int i = 1; i < s.length(); i++) {
            if (s.charAt(i) != s.charAt(i - 1)) {
                result += s.charAt(i);
            }
        }
    }
    return result;
}
```