

CSE 142 Section Handout #6 Solutions

1.

```
public static void purpleGold(Scanner input) {
    int purple = 0;
    int gold = 0;
    int diff = 0;    // difference between purple and gold team's sum

    while (input.hasNext()) {
        String throwAway = input.next(); // throw away name
        if (purple == gold) {
            purple++;
            diff -= input.nextInt();
        } else {
            gold++;
            diff += input.nextInt();
        }
    }
    System.out.println(purple + " purple, " + gold + " gold");
    System.out.println("Difference between purple team and gold team sums: " +
        Math.abs(diff));
}
```

or

```
public static void purpleGold(Scanner input) {
    int purple = 0;
    int gold = 0;
    int people = 0;
    int purpleSum = 0;
    int goldSum = 0;

    while (input.hasNext()) {
        String throwAway = input.next(); // throw away name
        people++;
        if (people % 2 == 1) {
            purpleSum += input.nextInt();
        } else {
            goldSum += input.nextInt();
        }
    }
    int diff = Math.abs(purpleSum - goldSum);
    System.out.println(purple + " purple, " + gold + " gold");
    System.out.println("Difference between purple team and gold team sums: " + diff);
}
```

2.

```
public static void evenNumbers(Scanner input) {
    int count = 0;
    int evens = 0;
    int sum = 0;
    while (input.hasNextInt()) {
        int number = input.nextInt();
        count++;
        sum += number;
        if (number % 2 == 0) {
            evens++;
        }
    }
    double percent = 100.0 * evens / count;
    System.out.println(count + " numbers, sum = " + sum);
    System.out.printf("%d evens (%.2f%%)\n", evens, percent);
}
```

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Solutions (continued)

3.

```
public static boolean negativeSum(String line) {
    Scanner lineScan = new Scanner(line);
    int sum = 0;
    int count = 0;
    while (lineScan.hasNextInt()) {
        int next = lineScan.nextInt();
        sum += next;
        count++;
        if (sum < 0) {
            System.out.println(sum + " after " + count + " steps");
            return true;
        }
    }

    System.out.println("no negative sum");
    return false; // not found
}
```

4.

```
public static void collapseSpaces(Scanner input) {
    while (input.hasNextLine()) {
        String line = input.nextLine();
        Scanner words = new Scanner(line);
        if (words.hasNext()) {
            System.out.print(words.next());
            while (words.hasNext()) {
                System.out.print(" " + words.next());
            }
        }
        System.out.println();
    }
}
```

5.

```
public static void rateMovies(Scanner input) {
    while (input.hasNextLine()) {
        String line = input.nextLine();
        Scanner data = new Scanner(line);
        int count = data.nextInt();
        double sum = 0.0;
        for (int i = 1; i <= count; i++) {
            double next = data.nextDouble();
            sum = sum + next;
        }
        double score = sum / count;
        System.out.print("title =");
        while (data.hasNext()) {
            System.out.print(" " + data.next());
        }
        System.out.println(", ratings = " + count + ", score = " + score);
    }
}
```