

CSE 143X Section Handout #3 Solutions

1.

| Call | Output |
|---------------|--------|
| mystery1(8); | 8 6 |
| mystery1(-3); | -3 4 |
| mystery1(1); | 1 3 |
| mystery1(0); | 0 0 |

2.

```
Scanner console = new Scanner(System.in);
System.out.print("x coordinate? ");
double x = console.nextDouble();
System.out.print("y coordinate? ");
double y = console.nextDouble();

int neg = 0;
if (x < 0.0) {
    neg++;
}
if (y < 0.0) {
    neg++;
}
System.out.println("negatives = " + neg);
```

3.

```
public static int daysInMonth(int month) {
    if (month == 4 || month == 6 || month == 9 || month == 11) {
        return 30; // 30 days have September, April, June, and November
    } else if (month == 2) {
        return 28; // 28 days in February
    } else {
        return 31; // 31 days in all other months
    }
}
```

4.

```
public static int quadrant(double x, double y) {
    if (x > 0 && y > 0) {
        return 1;
    } else if (x < 0 && y > 0) {
        return 2;
    } else if (x < 0 && y < 0) {
        return 3;
    } else if (x > 0 && y < 0) {
        return 4;
    } else { // at least one equals 0
        return 0;
    }
}
```

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5.

```
System.out.print("how many integers? ");
int count = console.nextInt();
int sum = 0;
int max = 0;

for (int i = 1; i <= count; i++) {
    System.out.print("next integer? ");
    int next = console.nextInt();
    if (next % 2 == 0) {
        sum += next;
        if (next > max) {
            max = next;           // or, max = Math.max(max, next);
        }
    }
}

System.out.println("even sum = " + sum);
System.out.println("even max = " + max);
```

6.

```
public static String formatName(String name) {
    int spaceIndex = name.indexOf(" ");
    String surname = name.substring(spaceIndex + 1);
    char firstInitial = name.charAt(0);
    return surname + ", " + firstInitial + ".";
}
```