

Name: _____

CS-200-1

Practice Quiz #2: Solution

- Write legibly. If I am unable to read your writing, you will receive **zero** points.
- Put your name on EACH page.
- You can use `S.O.P.L()` to abbreviate `System.out.println()` and `S.O.P()` to abbreviate `System.out.print()`.
- For coding problems, you should write the `main()` method only. You can assume that following import statement and keyboard declarations.
`import java.util.Scanner;`
`Scanner keyboard = new Scanner(System.in);`

Name: _____

CS-200-1

1. Write a program that asks the user to enter two nonzero integers. The program should then determine whether the integers are both positive, both negative or one of each. The main method structure has been created for you. The output must be formatted exactly like below and assume the Scanner class has been imported and the keyboard created. Your program should work for any input entered. Four sample runs have been provided.

Sample Output

Enter two nonzero integers: 10 11
Both positive

Enter two nonzero integers: -7 -8
Both negative

Enter two nonzero integers: -4 6
One of each

Enter two nonzero integers: 3 -9
One of each

```
public static void main(String[] args)
{
    int num1, int num2;
    S.O.P("Enter two integers: ");
    num1 = keyboard.nextInt();
    num2 = keyboard.nextInt();

    if (num1 < 0 && num2 < 0)
        S.O.P.L("Both negative");
    else if (num1 > 0 && num2 > 0)
        S.O.P.L("Both positive");
    else
        S.O.P.L("One of each");
}
```

Name: _____

CS-200-1

2. Trace through the following program and determine the output. Write the output in the Output Window provided.

```
public class PracticeQuiz2
{
    public static void main(String[] args)
    {
        int a, b, c, d, e;
        a = 6;
        b = 3;
        c = a/b;
        d = a - b;

        String msg = "i before e except after c";
        char letter = 'f';

        boolean isCool = (c + 5 > d);

        if (isCool)
        {
            S.O.P.L("That is so totally cool.");
            if (d % 2 == 1)
            {
                d++;
                b = d;
                S.O.P.L("Flowers! " + b);
            }
            else
                S.O.P.L("Birds! " + d);
        }
        else
        {
            S.O.P.L("Totally not rad.");
            c++;
            S.O.P.L("Planets! " + c);
        }

        if (b % 2 == 0 && b == c)
            S.O.P.L(msg.charAt(b));
        else if (b % 2 == 1 && b == c)
            S.O.P.L(msg.charAt(c));
        else
            S.O.P.L(msg.charAt(d));

        c1 = msg.charAt(a);
        c2 = msg.charAt(b);
        S.O.P.L(c1 == letter);
        S.O.P.L(c2 == letter);
        S.O.P.L(c1 == letter && c2 == letter);
        S.O.P.L(c1 == letter || c2 == letter);
    }
}
```

Output Window

That is so totally cool.
Flowers! 4
f
false
true
false
true