

2.04 Worksheet

Primitive Data Types: doubles

You will need the CalculationsV4 class from the previous lesson for this practice session.

- Create a new project called 2.04 Arithmetic Expressions, in the Mod02 Lessons folder.
- Create a new class called CalculationsV5, in the newly created project.
- Copy the CalculationsV4 class and paste it into the CalculationsV5 version of the file.
- Be sure to change the version in the class name from V4 to V5.
- Compile and run the program to verify that there are no errors.

The following code should look familiar to you by now. Notice that the decimal numbers 23.51 and 8.9325 have been assigned to the **double** variables **dNum1** and **dNum2**.

```
public class CalculationsV5
{
    public static void main(String[ ] args)
    {
        int iNum1 = 4;
        int iNum2 = 8;
        int iNum3 = 15;
        int iNum4 = 23;

        double dNum1 = 23.51;
        double dNum2 = 8.9325;

        // Addition
        System.out.println("Addition");
        System.out.print(iNum1 + " plus " + iNum2 + " = ");
        System.out.println(iNum1 + iNum2);
        System.out.print(dNum1 + " plus " + dNum2 + " = ");
        System.out.println(dNum1 + dNum2);
        System.out.println();

        // Subtraction
```

As you examine this code segment, you will see the same pattern that was used with the **int** variables.

- Variables **dNum1** and **dNum2** have been substituted for the decimals 23.51 and 8.9325 in the print statements.

- Concatenation is used in the **print()** method to print the values of the variables and the String literals.
- The **println()** method adds the values contained in the two **double** variables and prints the result.

The String literal and the arithmetic expression could have been printed in one statement instead of two, but using **print()** and **println()** in combination is a good strategy to reduce typos when printing error-prone output statements.

From now on, you should use variables instead of values when appropriate.