

Arithmetic Operations

Directions

Write a program that adds, subtracts, multiplies, divides, and determines the remainder of two numbers.

Use the following instructions in your implementation:

Create two variables of type int named num1 and num2. Initialize num1 with a value of 25 and initialize num2 with a value of 6.

Create five variables of type int named sum, difference, product, quotient, and remainder. Initialize each variable to 0.

Write a Java statement that will add the values stored in num1 and num2 together and store the result in the variable sum.

Write a Java statement that will subtract the values stored in num1 and num2 and store the result in the variable difference.

Write a Java statement that will multiply the values stored in num1 and num2 together and store the result in the variable product.

Write a Java statement that will divide the values stored in num1 and num2 and store the result in the variable quotient.

Write a Java statement that will determine the remainder when the values stored in num1 and num2 are divided and store the result in the variable remainder.

Print the results of the calculations using the format shown in the Sample Run below.

Print the variables not the literal values in your println statements. For example, the following code prints literal values:

```
System.out.println(25 + " + " + 6 + " = " + 31);
```

Whereas this example prints the values contained in the variables:

```
System.out.println(num1 + " + " + num2 + " = " + sum);
```

Compile and execute the program. Verify that the output matches the first sample run below.

Modify the program by changing num1's value to 77 and num2's value to 32.

Compile and execute the program. Verify that the output matches the second sample run below.

Sample Run 1

Arithmetic

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$$25 + 6 = 31$$

$$25 - 6 = 19$$

$$25 * 6 = 150$$

$$25 / 6 = 4$$

$$25 \% 6 = 1$$

Sample Run 2

Arithmetic

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$$77 + 32 = 109$$

$$77 - 32 = 45$$

$$77 * 32 = 2464$$

$$77 / 32 = 2$$

$$77 \% 32 = 13$$