Labwork – (Arithmetic operations)

1. In this question, you will explore different common uses of modulus (%) operator.
    1. Extract individual digits of an integer.
        a. Declare and initialize an integer with 12345 as value.
        b. Output the value of (12345 % 10).
        c. Output the value of (12345/10).

    2. Test divisibility of a number.
        a. Output the value of 12345 % 3, 12345 % 4 and 12345 % 5 respectively.
        b. If the value is 0, it means that the number on the left **is divisible** by the number on the right.
        c. If the value is any value other than 0, it means the number on the left **is NOT divisible** by the number on the right.

2. Write a program that asks the user to enter two fractions, and then displays their sum in fractional form (You don't need to reduce it to lowest terms). The interaction with the user might look like this (where the characters in bold are user input with cin and the rest are program output using cout):

    Enter first fraction: **1/2**
    Enter second fraction: **2/5**
    Sum:

    9

    10

    (Pay attention to output format)

    Hint: You can take advantage of the fact that the extraction operator (>>) can be chained to read in more than one quantity at once (dummychar can be declared as a char variable):
    cin >> a >> dummychar >> b;

    Adding Formula: $\dfrac{a}{b} + \dfrac{c}{d} = \dfrac{ad + bc}{bd}$