

1. using **value** parameters

Write a program that has one integer function called `diff1()` which takes two integer value parameters, A and L , and returns an integer value equal to the positive difference between the two parameters. The “positive difference” means that the return value should always be ≥ 0 . In other words, if $A > L$, the function should return $A - L$; if $A < L$, the function should return $L - A$; and if $A == L$, the function should return 0.

The `main()` function should:

- a. prompt the user to enter two integer values,
- b. echo the user's input,
- c. invoke `diff1()` to compute the positive difference between them, and
- d. print out the result.

2. using **reference** parameters

Write a program that has one void function called `diff2()` which takes two integer value parameters, A and L , and one integer reference parameter, N . The function should set the value of N equal to the positive difference between the first two parameters. In other words, if $A > L$, then $N = A - L$; if $A < L$, then $N = L - A$; and if $A == L$, then $N = 0$.

The `main()` function should:

- a. prompt the user to enter two integer values,
- b. echo the user's input,
- c. invoke `diff2()` to compute the positive difference between them, and
- d. print out the result.

3. using the `cout` formatting functions

Write a program that has one void function called `diff3()` which takes two double value parameters, A and L , one double reference parameter, N , and one double boolean parameter, `loss`. The function should set the value of N equal to the positive difference between the first two parameters. In other words, if $A > L$, then $N = A - L$; if $A < L$, then $N = L - A$; and if $A == L$, then $N = 0$. The function should set the value of `loss` to `true` if $L > A$ or `+false+` otherwise.

The `main()` function should:

- a. prompt the user to enter two double values which represent money, *assets* (A) and *liabilities* (L);
- b. use `cout` formatting functions to echo the user's input as currency using dollars and cents (\$ followed by two decimal places);
- c. invoke `diff3()` to compute the positive net difference between the assets and liabilities, and
- d. print out the result, as a currency value in dollars and cents. If the result (net difference) is a loss, then the output should be printed inside parenthesis, e.g., (\$12.99).