MPP - C Programming Exercises

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Tasks

- Write a **Procedural** C program....

  - to calculate the absolute difference between n and 51. If n is greater than 51 return triple the absolute difference. Listing 1 provides an example of determining the absolute value of a number. Note the use of an include statement.

```c
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int n = -10;
    n=abs(n);
    printf("Absolute value = %d\n", n);
    return 0;
}
```

Listing 1: Absolute value header file

  - to check two given integers, and return true if one of them is 30 or if their sum is 30. C doesn't have booleans built-in, so you can use the snippet in Listing 2 or use the values 1 and 0.

```c
#include <stdbool.h> // Header-file for boolean data-type.
int main() {
    bool x=false;
```

Listing 2: Using boolean header file

  - to compute the sum of the two given integers. If the sum is in the range 10..20 inclusive return 30.
  - that accepts two integers and returns true if either one is 5, or their sum, or difference, is 5.
  - to check if y is greater than x, and z is greater than y from three given integers x, y, z. Print appropriate messages using **printf()**.
  - to check if two or more non-negative given integers have the same rightmost digit.
    * The modulus operator could be useful here.