Lab exercise (Arrays with functions)

1. **Write a C++ function called negSum that returns the sum of all negative elements in an array of integers.**

   For example, a program that uses the function negSum follows.

   ```
   main() {
           int data[6] = {-5, -4, 1, 3, 2, -3};
           int x;
           x = negSum (data, 6);
           cout << "The negative sum is: " << x << endl; //Output is -12 because -5 + -4 + -3 = -12
   }
   ```

2. **Write a C++ function called range that returns the difference between the largest and smallest elements in an array.**

   For example, a program that uses the function range follows.

   ```
   main() {
           int data[6] = {11, 12, 11, 3, 12, 13};
           int x;
           x = range (data, 6);
           cout << "The range is: " << x << endl;  // Output is 10 because 13 – 3 = 10.
   }
   ```

3. **Write a function called sum2D that returns the sum of all elements in a 2-dimensional array.**

   For example, a program that uses the function sum2D follows.

   ```
   int main() {
           int array[3][4] = {{1,2,3,4},{1,2,3,4},{1,2,3,4}};
           cout << sum2D(array, 3, 4) << endl;
           return 0;
   }
   ```

   The input values 3 and 4 specify the number of rows and columns in the array. The program should print an answer of 30

4. **Write a function called biggestEntry that uses a two dimensional array and two parameters representing the row and column capacities. The function should return the value of the biggest entry in the array.**

   For example, a program that uses the function biggestEntry follows.

   ```
   int main() {
           int x[2][3] = {{1,2,3},{4,7,3}};
           cout << biggestEntry(x, 2, 3) << endl;
           return 0;
   }
   ```

   It should print 7 (since 7 is the biggest entry in the array).

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5. **Write a function called sixCount that returns a count of the number of entries that are equal to 6 in a 2-dimensional array. The function should use a parameter to specify the array and parameters for the row count and column count.**

   For example, a program that uses the function sixCount follows.

```
int main() {
        int arr[2][6] = {{6,4,3,1,2,2}, {6,6,5,2,3,6}}; // array has 4 entries of 6
        cout << sixCount(arr, 2, 6) << endl; // prints 4
        return 0;
}
```