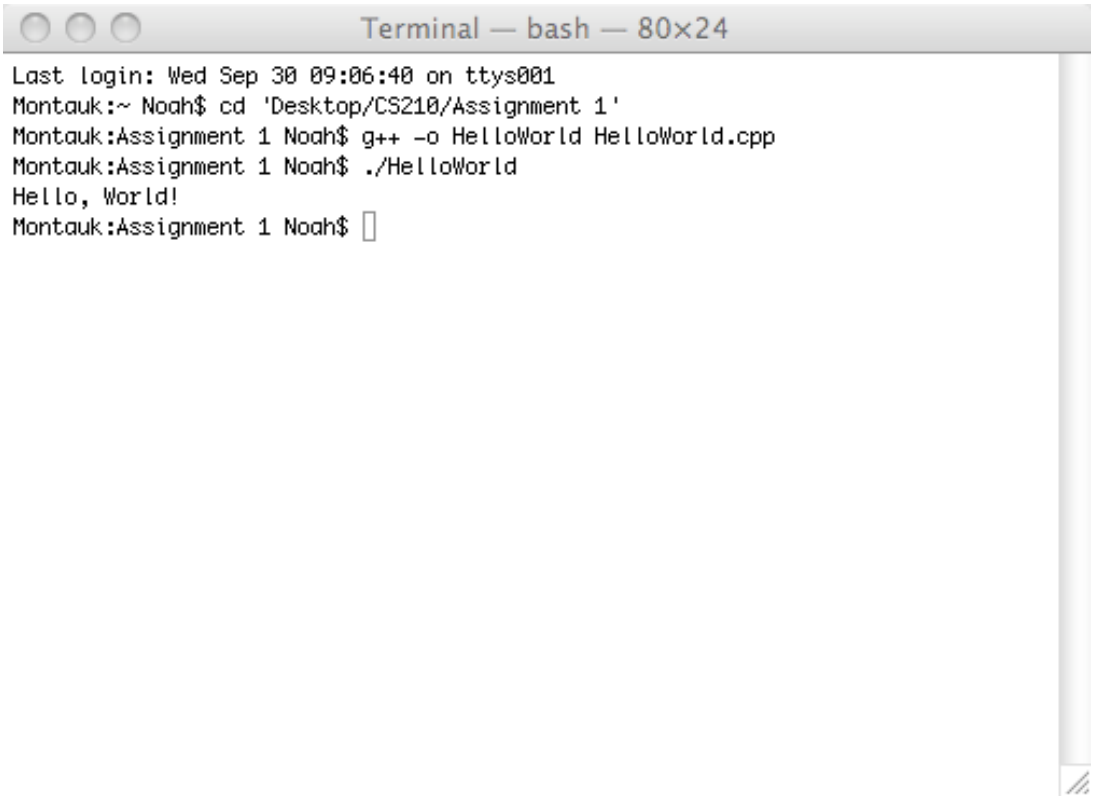
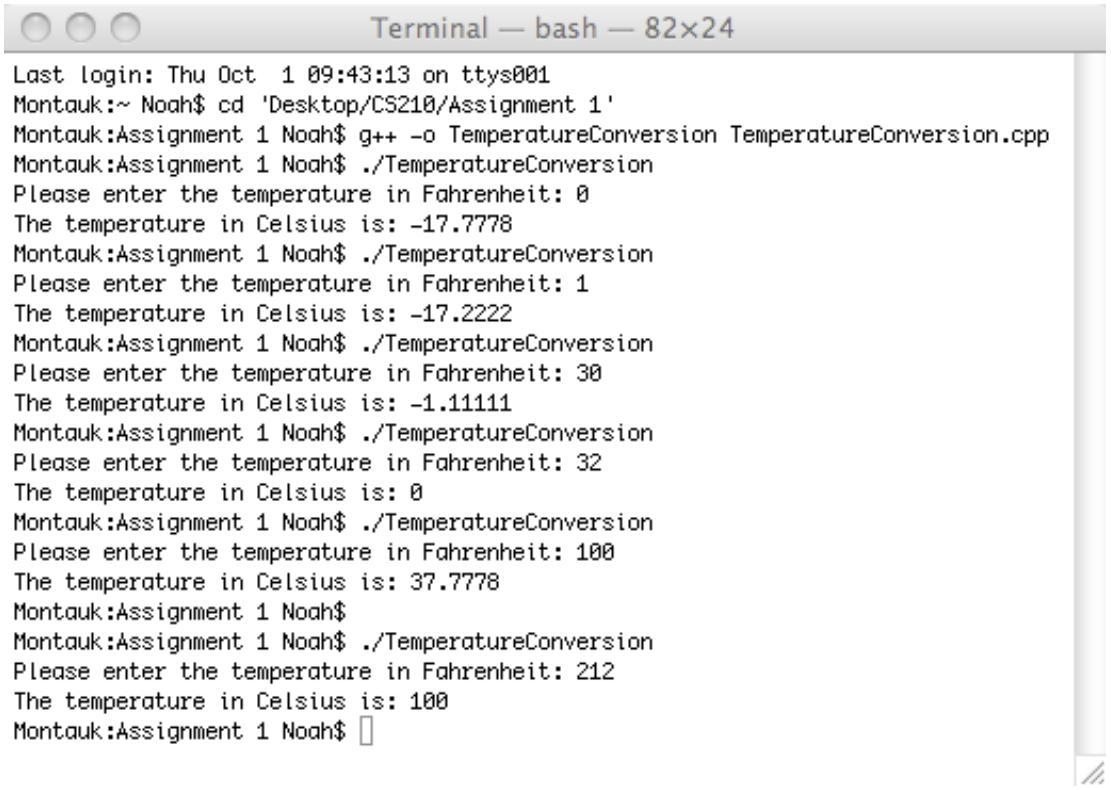
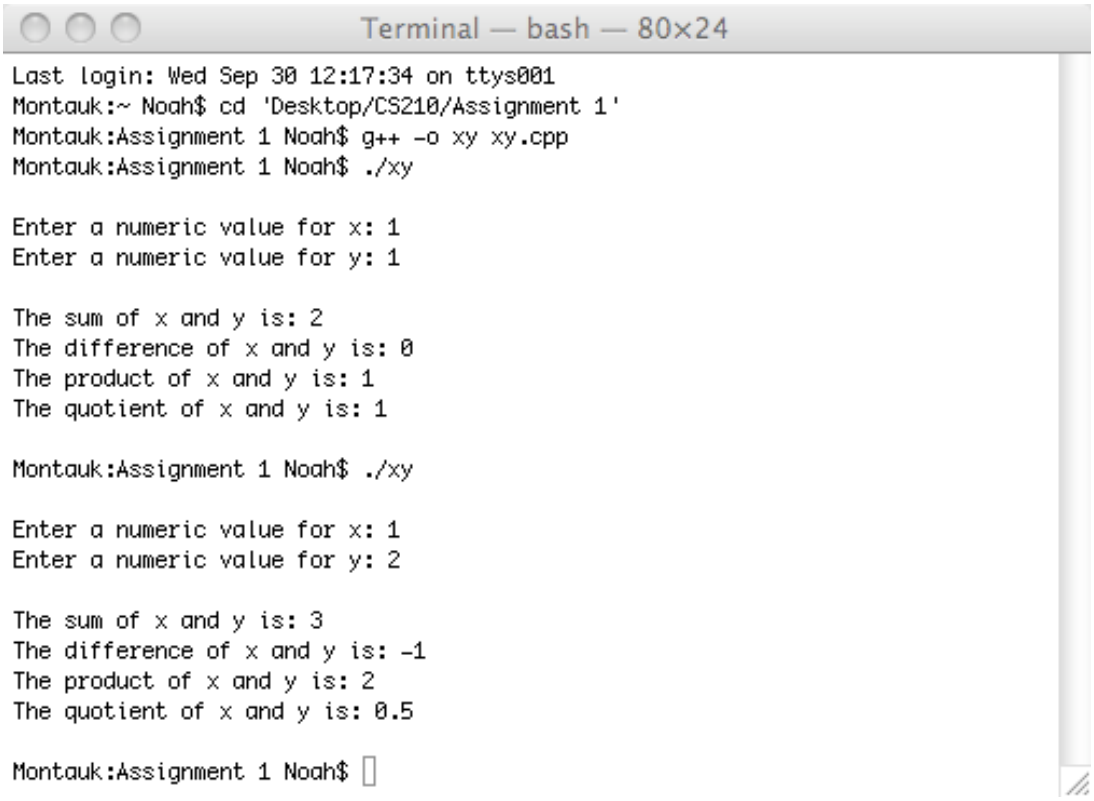
```cpp
/*
 *  HelloWorld.cpp
 *
 *   Created by Noah Greer on 9/30/09.
 *   Class: CS210
 *   Instructor: Craig Niiyama
 *
 *   Displays the text "Hello, World!" and exits.
 *
 */

#include <iostream>    // include standard library
using namespace std;   // use standard namespace

int main()     // start main function that takes no arguments and returns an int
{

     cout << "Hello, World!" << endl; // display "Hello, World!" and end the line

     return 0;         // exit and return control to the user

}
```


Terminal — bash — 80×24
Last login: Wed Sep 30 09:06:40 on ttys001
Montauk:~ Noah$ cd 'Desktop/CS210/Assignment 1'
Montauk:Assignment 1 Noah$ g++ -o HelloWorld HelloWorld.cpp
Montauk:Assignment 1 Noah$ ./HelloWorld
Hello, World!
Montauk:Assignment 1 Noah$

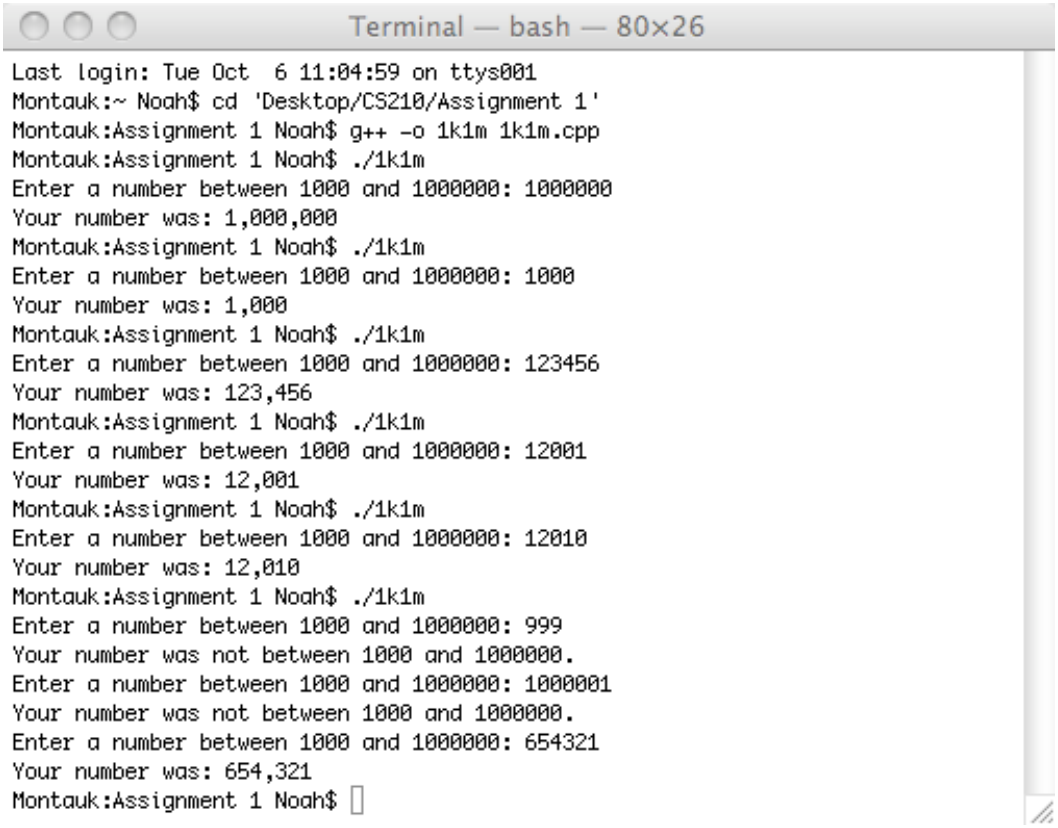
```cpp
/*
 *  TemperatureConversion.cpp
 *
 *   Created by Noah Greer on 9/30/09.
 *   Class: CS210
 *   Instructor: Craig Niiyama
 *
 *   Asks user for a temperature in Fahrenheit converts that number into Celsius and displays the
value.
 *
 */

#include <iostream>
using namespace std;

float fahrToCelsius(int Fahrenheit);  // Prototype for fahrToCelsius which will take the number
that the user gives as the temperature in Fahrenheit

int main()
{

     int Fahrenheit;   // input - the temperature in Fahrenheit

     cout << "Please enter the temperature in Fahrenheit: ";        // Prompts user for
temperature in Fahrenheit to be converted
     cin >> Fahrenheit;        // captures user input
     cout << "The temperature in Celsius is: " << fahrToCelsius(Fahrenheit) << endl;

}

float fahrToCelsius(int Fahrenheit)
{

     return (5.0/9.0) * (Fahrenheit - 32);

}
```


Terminal — bash — 82×24
Last login: Thu Oct 1 09:43:13 on ttys001
Montauk:~ Noah$ cd 'Desktop/CS210/Assignment 1'
Montauk:Assignment 1 Noah$ g++ -o TemperatureConversion TemperatureConversion.cpp
Montauk:Assignment 1 Noah$ ./TemperatureConversion
Please enter the temperature in Fahrenheit: 0
The temperature in Celsius is: -17.7778
Montauk:Assignment 1 Noah$ ./TemperatureConversion
Please enter the temperature in Fahrenheit: 1
The temperature in Celsius is: -17.2222
Montauk:Assignment 1 Noah$ ./TemperatureConversion
Please enter the temperature in Fahrenheit: 30
The temperature in Celsius is: -1.11111
Montauk:Assignment 1 Noah$ ./TemperatureConversion
Please enter the temperature in Fahrenheit: 32
The temperature in Celsius is: 0
Montauk:Assignment 1 Noah$ ./TemperatureConversion
Please enter the temperature in Fahrenheit: 100
The temperature in Celsius is: 37.7778
Montauk:Assignment 1 Noah$
Montauk:Assignment 1 Noah$ ./TemperatureConversion
Please enter the temperature in Fahrenheit: 212
The temperature in Celsius is: 100
Montauk:Assignment 1 Noah$

```cpp
/*
 *  xy.cpp
 *
 *   Created by Noah Greer on 9/30/09.
 *   Class: CS210
 *   Instructor: Craig Niiyama
 *
 *   Collects two numbers and finds their sum, difference, product, and quotient. Then displays
the results.
 *
 */

#include <iostream>           // include the standard library
using namespace std;   // use the standard namespace

int main()     // Begining of main function
{

     int               x, y,          // input - two variables
                       sum,           // output - the sum of x and y
                       difference,    // output - the difference of x and y
                       product;       // output - the product of x and y
     float     quotient;      // output - the product of x and y

     /* Prompt user for two numbers and put them in x and y */
     cout << endl << "Enter a numeric value for x: ";
     cin >> x;
     cout << "Enter a numeric value for y: ";
     cin >> y;

     /* Perform sum, difference, product, and quotient opperations on x and y */
     sum = x + y;
     difference = x - y;
     product = x * y;
     quotient = (x * 1.0) / (y * 1.0);

     /* Display the results of the previous operations */
     cout << endl << "The sum of x and y is: " << sum << endl;      // display the sum of x and y
     cout << "The difference of x and y is: " << difference << endl;              // display and
difference of x and y
     cout << "The product of x and y is: " << product << endl;             // display the product
of x and y
     cout << "The quotient of x and y is: " << quotient << endl << endl;          // display the
quotient of x and y

     return 0;

}
```


Terminal — bash — 80×24
Last login: Wed Sep 30 12:17:34 on ttys001
Montauk:~ Noah$ cd 'Desktop/CS210/Assignment 1'
Montauk:Assignment 1 Noah$ g++ -o xy xy.cpp
Montauk:Assignment 1 Noah$ ./xy
Enter a numeric value for x: 1
Enter a numeric value for y: 1
The sum of x and y is: 2
The difference of x and y is: 0
The product of x and y is: 1
The quotient of x and y is: 1
Montauk:Assignment 1 Noah$ ./xy
Enter a numeric value for x: 1
Enter a numeric value for y: 2
The sum of x and y is: 3
The difference of x and y is: -1
The product of x and y is: 2
The quotient of x and y is: 0.5
Montauk:Assignment 1 Noah$

```
/*
 *  1k1m.cpp
 *
 *   Created by Noah Greer on 9/30/09.
 *   Class: CS210
 *   Instructor: Craig Niiyama
 *
 *   Reads a number between 1000 and 1000000. Then, recalls the number with commas inserted every
three digits.
 *
 */

#include <iostream>
using namespace std;

int main()
{

     const int MAX_VALUE = 1000000,   // define the maximum of the range for input
                               MIN_VALUE = 1000;             // define the minimum of the range
for input

     int number = 0;   /* input - the number to be tested if its between 1000 and 1000000.
                                       * Then, formatted and displayed with commas.
                                       * Set to a starting value of 0 so the first while
statement will be satisfied.
                                       */
     int chunk1, chunk2; // output - two chunks of digits to have a comma placed between them

     // check that the input is a number between 1000 and 1000000
     while(number > MAX_VALUE || number < MIN_VALUE)
     {
               cout << "Enter a number between 1000 and 1000000: ";
               cin >> number;
               if(number > MAX_VALUE || number < MIN_VALUE)
               {
                        cout << "Your number was not between 1000 and 1000000." << endl;
               }
     }

     // If the number is the maximum value, then just print it already formatted. No calculation
required.
     if(number ==  MAX_VALUE)
     {
               cout << "Your number was: 1,000,000" << endl;
     }

     /* if the number is between the minimum and the maximum,
      * then divide the number by 1000 to get the number of thousands, ten-thousands, and
hundred-thousands and store it in chunk1
      * then divide the number by 1000 and take the remainder to get the ones, tens, and hundreds
places and put it in chunk2
      * use printf to print chunk1
      * then print chunk2 at least three digits wide and with zeros as padding
      * so that a number like 12099 doesn't get displayed as 12,99 or a number like 12,001
doesn't get displayed as 12,1
      */
     if(number < MAX_VALUE && number >= MIN_VALUE)
     {
               chunk1 = number / 1000;
               chunk2 = number % 1000;
               printf("Your number was: %d,%03d\n", chunk1, chunk2);
     }

     return 0;

}
```


Terminal — bash — 80×26
Last login: Tue Oct 6 11:04:59 on ttys001
Montauk:~ Noah$ cd 'Desktop/CS210/Assignment 1'
Montauk:Assignment 1 Noah$ g++ -o 1k1m 1k1m.cpp
Montauk:Assignment 1 Noah$ ./1k1m
Enter a number between 1000 and 1000000: 1000000
Your number was: 1,000,000
Montauk:Assignment 1 Noah$ ./1k1m
Enter a number between 1000 and 1000000: 1000
Your number was: 1,000
Montauk:Assignment 1 Noah$ ./1k1m
Enter a number between 1000 and 1000000: 123456
Your number was: 123,456
Montauk:Assignment 1 Noah$ ./1k1m
Enter a number between 1000 and 1000000: 12001
Your number was: 12,001
Montauk:Assignment 1 Noah$ ./1k1m
Enter a number between 1000 and 1000000: 12010
Your number was: 12,010
Montauk:Assignment 1 Noah$ ./1k1m
Enter a number between 1000 and 1000000: 999
Your number was not between 1000 and 1000000.
Enter a number between 1000 and 1000000: 1000001
Your number was not between 1000 and 1000000.
Enter a number between 1000 and 1000000: 654321
Your number was: 654,321
Montauk:Assignment 1 Noah$