Group 2

1/24/20

**CECS 229 Lab 1 Report**

The algorithm starts only if the dividend is greater than the divisor. If the dividend is not greater than the divisor, the algorithm will only return None. When the algorithm runs, it will set **r**, the remainder, to a number that is one higher than **b**. In the algorithm, the quotient **q** is set to 0 because we will be incrementing **q** inside the while loop. The while loop itself will go on forever unless we return or tell it to break the loop. We use the equation **r** = **a** - **b** \* **q** to set the remainder every time the loop runs. At the end of the program assuming **b** \* (**q** + 1) > **a** is false, **q** increments. If this equation is true, the program will return the quotient and remainder instead of looping again. This equation being true implies that the next iteration of the loop will have a quotient that is too big to be the right answer.

