Lecture 10 Ticket

COSC 311: Algorithms, Fall 2022

Name: _____

1. Multiply the binary numbers `1011010` and `110111` by hand using the algorithm described in the Binary Representation notes. Check your work by converting the numbers to decimal and performing the decimal multiplication as well. Please show your work.

2. Suppose a and b are both represented with n bits. What is the running time of $\mathrm{Multiply}(a, b)$ as a function of n? (Be sure to account for the running time of the call to Add.) If a and b satisfy $a, b \leq N$, what is the running time of $\mathrm{Multiply}(a, b)$ as a function of N?