Homework Assignment 1

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Problem 1:

a) gcd(31415, 14142) = gcd(14142, 3131) = gcd(3131, 1618) = gcd(1618, 1513) = gcd(1513, 105) = gcd(105, 43) = gcd(43, 19) = gcd(19, 5) = gcd(5, 4) = **1**

b) 14142 / 9 = **1571.33 times faster**

Problem 2:

a) The minimum number of divisions is 1 which occurs if m is a multiple of n.

b) The maximum number of divisions is 5 where m = 5 and n = 8.

Problem 3:

**a) is the solution** since in b) we don’t know how to solve for sin(A) and in c) we don’t know how to solve for ha.

Problem 4:

Gaussian Elimination Examples:





