Name:_____

Lecture 8, class activity. Euclidean algorithm.

1. Let $m = 13$ and $n = 76$.

   (a) Compute the prime factorization of both m and n.

   (b) Use this prime factorization to obtain the $\gcd(m, n)$.

   (c) Now use the Euclidean algorithm to obtain $\gcd(m, n)$.

   (d) (Which one was faster?)

2. Let $m = 72$ and $n = 108$. Answer (a)—(d) as for the last problem.

3. Now let $m = 11223344$ and $n = 22446690$.

   (a) Compute $\gcd(m, n)$ however you like.

   (b) Why did you choose the method that you did?