

CSE 321: Discrete Structures
Assignment #5
May 7, 2003
due: Wednesday, May 14

1. Section 3.2, exercise 14.
2. Section 3.2, exercise 34.
3. Section 3.2, exercise 40.
4. Section 3.2, exercise 44.
5. Define the Fibonacci numbers as follows: $f(0) = 0$, $f(1) = 1$, and $f(n) = f(n - 2) + f(n - 1)$ for all integers $n \geq 2$. Prove by induction that, for all integers $n \geq 2$, the number of iterations used by Euclid's algorithm to compute $\gcd(f(n+1), f(n))$ is $n - 1$.