Homework Assignment #5
Due Date, Monday 10/23

1. Consider the Fibonacci numbers f_0, $f_1 = 1$, and $f_n = f_{n-1} + f_{n-2}$ for all $n \geq 2$. Use the second principle of induction to prove that $f_n \geq (1.6)^{n-2}$ for all $n \geq 6$.

2. Use the method of power series to find a closed-form formula for r_n where $r_0 = 1$, $r_1 = 2$, and $r_n = 4r_{n-1} - 4r_{n-2} + 3n + 1$ for $n \geq 2$. Do not use other methods.