Math 182   Quiz 14   Name: _____

November 9, 2004

Show all work for credit.

1. Let $a_0 = 2$, $a_1 = 1$, and $a_n = 2a_{n-1} - a_{n-2}$. What is a_6?

2. Determine if the sequence given by $\left\{ \dfrac{3n^4 + 5n^2 + 3}{7n^5 + 5n^4 - n^2 - 1} \right\}_{n=0}^{\infty}$ converges or diverges, and if it converges, find the value to which it converges.