

Name: _____

Panther ID: _____

Quiz 4

Calculus II

Fall 2013

1. (6 pts) In each case, find the general term a_n and determine if the sequence converges:

(a) $a_1 = \frac{1}{2}, a_2 = -\frac{2}{3}, a_3 = \frac{3}{4}, a_4 = -\frac{4}{5}, a_5 = \frac{5}{6}, \dots$

(b) $a_0 = 5, a_1 = -\frac{5}{2}, a_2 = \frac{5}{4}, a_3 = -\frac{5}{8}, a_4 = \frac{5}{16}, \dots$

2. (5 pts) Show that the sequence $\left\{ \frac{10^n}{n!} \right\}_{n=1}^{\infty}$ is eventually monotone.