

Name: _____

Show all work clearly and in order. Please box your answers.

1. Determine whether the sequence converges, and if so find its limit.

(a) $\left\{ \frac{2n^2 + 3}{3n^2 - n} \right\}_{n=1}^{\infty}$

(b) $\left\{ \frac{n}{\ln(n)} \right\}_{n=2}^{\infty}$

2. Show that the given sequence is strictly increasing or strictly decreasing.

$$\left\{ \frac{2n}{3n-1} \right\}_{n=1}^{\infty}$$

The sequence is strictly