HOMEWORK

1) Prove the sequence $\{\frac{n}{7n-3}\}$ converges to $\frac{1}{7}$ using the definition of convergence.

2) Prove the sequence $\{2 - \frac{1}{n^2}\}$ converges to 2 using the definition of convergence.

3) Prove the sequence $\{\frac{2n}{5n-3}\}$ converges to $\{\frac{2}{5}\}$ using the definition of convergence.

4) Prove the sequence $\{\ n^2\}$ diverges to infinity.

5) Prove the sequence $\{\sqrt[4]{2n}\}$ diverges to infinity.

6) Prove the sequence $\{(-1)^n n\}$ does not have a limit.

7) Prove the sequence $\{(-2)^n\}$ does not have a limit.

8) Chartrand section 12.1 number 12.5