

HOMEWORK 10

- 1) Prove the sequence $\{\frac{3n}{4n-2}\}$ converges to $\frac{3}{4}$ 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 $\{\frac{n}{n+2}\}$ converges to 1 using the definition of convergence.
- 4) Prove the sequence $\{n^5\}$ diverges to infinity.
- 5) Prove the sequence $\{\sqrt[4]{2n}\}$ diverges to infinity.
- 6) Prove the sequence $\{(-3)^n\}$ does not have a limit.
- 7) Prove the sequence $\{(-1)^n \sqrt[3]{n}\}$ does not have a limit.
- 8) Chartrand section 12.1 number 12.5.

Book Questions Not collected: 12.1 – 7, 12.31 – 33, 12.37, 12.39, 12.40