Math 318  
Homework 3  
Due January 30, 2009

1. Section 2.2: 2,3,8.

2. Section 2.3: 2

3. Using the definition of convergence on page 67 of the text, prove that the sequences below converge:

(a) \[ \left\{ 5 + \frac{1}{k} \right\}_{k=1}^{\infty} \]

(b) \[ \left\{ 2^{-k} \right\}_{k=1}^{\infty} \]

(c) \[ \left\{ \frac{3k}{2k+1} \right\}_{k=1}^{\infty} \]