6 November 2014
Analysis I
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HW 10

Due: Nov 11 in class. Justify all of your work.

1. VIII.4.2

2. IX.2.5

3. IX.2.9

4. IX.3.4

5. IX.3.6

6. IX.5.2

7. IX.5.7

8. True or false: The alternating harmonic series can be rearranged into an infinite series that diverges (has unbounded partial sums). Prove your answer.

9. Find a sequence $\{a_n\}$ in an incomplete normed vector space such that $\sum_{n=1}^{\infty} \|a_n\|$ converges, yet $\sum_{n=1}^{\infty} a_n$ does not converge (to an element of the space).