Homework 6
Due: Wednesday, February 29

1. Let $\{a_n\}$ be a sequence of numbers. Suppose that there exists an $r < 1$ and an N such that, for $n \geq N$,

$$|a_n|^{1/n} < r.$$

   Show that

$$\sum_n a_n$$

   converges absolutely.

2. For which numbers α does the series

$$\sum_{n \geq 2} \frac{1}{n(\log(n))^\alpha}$$

   converge?

3. [F]6.1.3

4. [F]6.1.4