

Mathematics 3790H – Analysis I: Real analysis
TRENT UNIVERSITY, Winter 2015

Assignment #2

Due on Friday, 23 January, 2015.

1. Show that if $\lim_{n \rightarrow \infty} a_n = L$ and $\lim_{n \rightarrow \infty} b_n = M \neq 0$, then $\lim_{n \rightarrow \infty} \frac{a_n}{b_n} = \frac{L}{M}$. [10]

HINT: You can bootstart from showing that $\lim_{n \rightarrow \infty} b_n = M \neq 0$ implies that $\lim_{n \rightarrow \infty} \frac{1}{b_n} = \frac{1}{M}$.