

Mathematics 3790H – Analysis I: Introduction to analysis
TRENT UNIVERSITY, Winter 2012

Assignment #2

Due on Thursday, 26 January, 2012.

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: This is easier if you first show that if $\lim_{n \rightarrow \infty} b_n = M \neq 0$, then $\lim_{n \rightarrow \infty} \frac{1}{b_n} = \frac{1}{M}$.