

# MA 425-002 Homework

S. Schechter

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1. Assume (1)  $x_n > 0$  for all  $n$  and (2)  $\lim(x_n) = \infty$ . Show that  $\lim(\frac{1}{x_n}) = 0$ .
2. Assume (1)  $\lim(x_n) = \infty$  and (2) the sequence  $(y_n)$  is bounded. Show that  $\lim(x_n + y_n) = \infty$ .