

MATH 131 Homework 4  
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1. **Prove**  $\exists N : n > N \implies s_n > a$

Let  $\lim s_n = L, L > a$ .

Then  $\forall k \in \mathbb{N} \exists N \in \mathbb{N} \forall n \in \mathbb{N} : n > N \implies |s_n - L| < \frac{1}{k} \implies |s_n - a| < \frac{1}{k}$ .