

Worksheet: Rigorous and careful limits of sequences

1. At the same level of rigor and care as in the examples done in class, show

$$\lim_{n \rightarrow \infty} \frac{n}{n-1} = 1$$

2. At the same level of rigor and care as in the examples done in class, show

$$\lim_{n \rightarrow \infty} \frac{1}{\sqrt{n}+1} = 0$$