

MATH 401 - Additional Questions for Homework on Section 2.2.

A. Let $x \in \mathbb{R}$. Prove that if $|x + 2| < 1$, then $|x + 4| < 3$.

B. Let $x \in \mathbb{R}$. Prove that if $|x - 6| < 2$, then $\frac{1}{x+3} < \frac{1}{7}$.

C. Let $x, y \in \mathbb{R}$. Prove that if $|x + 3| < 2$ and $|x - y| = 5$, then $3 < |y + 3| < 7$.