

University of Nebraska-Lincoln
Digital Signal Processing: Quiz 1

August 29, 2025

Name: _____

Total Points: 10

1. **(10 points)** Consider the frequency response

$$H(e^{j\omega}) = \frac{1 + e^{-j\omega}}{3 - 2e^{-j\omega}}$$

Find the **real part** of $H(e^{j\omega})$ as a function of ω . **Note:** don't leave any j 's, i 's, $\sqrt{-1}$'s, etc.