9. [11 points] Solve the following equations algebraically. Show all your work. Your answers should be \textbf{exact}.

   a. [4 points] \( \log(x + 1) - \log(x) = 1. \)

   \[ x = \quad \text{___________________________}. \]

   b. [3 points] \( e^{3 \ln(q)} = 2q^3 - 5. \)

   \[ q = \quad \text{___________________________}. \]

   c. [4 points] \( 10 \log(z^2) = \log(z) + 1. \)

   \[ z = \quad \text{___________________________}. \]