1. Find the pH level of a liquid with $[H^+]$ approximately $6.7 \times 10^{-3}$.

2. Find the hydrogen ion concentration of a substance with pH reading 4.18.

3. Suppose $y = 3.14 \times 10^{0.86x}$. Use a logarithmic transformation to find a linear relationship between the given quantities and graph the resulting linear relationship in the semilog (log-linear) plot.

4. Given $(x_1, y_1) = (2, 37)$ and $(x_2, y_2) = (5, 52)$ on a semilog (log-linear) plot, graph the line and determine the functional relationship of $x$ and $y$. 