1. The inverse of the function \( f(x) = e^x \) is the function \( f^{-1}(x) = \)

2. Rewrite in equivalent logarithmic form:
   a) \( 10^3 = 1000 \)
   b) \( 8^{\frac{4}{3}} = 16 \)

3. Rewrite in equivalent exponential form:
   a) \( \log_3 (125) = 3 \)
   b) \( \log (.01) = -2 \)

4. \( \log_3 (27) = \)

5. \( \ln (e^x) = \)