Name :_____   **ID. # :** _____   **SER. # :** ____

1. Graph $y = \log_{\frac{1}{3}} |x - 3|$, show all intercepts. (4 pts)

2. Find the domain and x–intercepts of $y = \ln(4 - x^2) - 1$ (no need for graph) (2 pts)

3. Given $\log 2 = 0.3010$, $\log 3 = 0.4771$, find the value of:

   $\log 0.016$, $\log 24$, $\left(\dfrac{\ln 10}{\ln 7}\right)(\log 7)$, $10^{(4 \log 2 - 2 \log 3)}$ (4 pts)