Present neatly. Justify for full credit. No Calculators.

Name _____   Score _____   ~10 minutes

1. Expand the logarithms in terms of sums, differences, and multiples of simpler logarithms

      (a) $\log(10x\sqrt{x-3})$ (b) $\ln \dfrac{x^2 \sin^3 x}{\sqrt{x^2+1}}$

2. Sketch a graph of a function. State the domain and range.

$$f(x) = 1 - e^{-x+1}$$