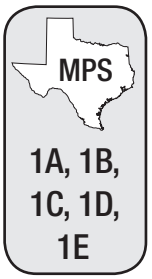
Name: **Date:**

Problem-Based Task: To the Rescue!



An emergency management agency wants to provide boaters in the state's coastal waters with updated information on the average length of rescue attempts. The natural logarithm function $N(t) = 12 - 6 \bullet \ln t$ is based on 28 recent rescue attempts. The time t, in hours, has a domain of [1, 6]. The range of the number of rescue attempts is [1, 12] and is restricted to whole numbers. For example, the greatest number of rescue attempts (12) occurred within the first hour after a distress call ($t = 1$). Use a graphing calculator to help sketch a graph of $N(t)$. Interpret the domain and range for the function in terms of the context of this problem. Also, interpret the values of $N(t)$ as its graph approaches the horizontal and vertical axes and at any intercepts on the graph.