1.) (5 pts.) Compute \( \int_{0}^{3} f \), where \( f \) is the quarter-circle shown in the following graph.

![Graph of a quarter-circle](image)

2.) (5 pts.) Use a graph and geometry to compute a formula for the area function

\[
A_f(x) = \int_{1}^{x} (2x + 1) \, dx.
\]