Try this

1. Approximate the arc length of a semicircle of radius 1 by approximating the circle by four line segments:

\[ y = \sqrt{1-x^2} \]

2. For \( f(x) = \ln x \), find the arc length integral for \( 1 \leq x \leq e \).

3. You want to calculate the square feet of shingles needed to roof a building of the shape given:

\[ y = x^{3/2} \]