

In each case, approximate the length of the curve C within 0.01 of its actual value. (That means, of course, remembering your approximation skills!)

1. C is the graph of $y = \ln(x)$ from $x = 1$ to $x = 8$
2. C is the graph of $y = \sin(x)$ from $x = 0$ to $x = \pi$
3. C is the graph of $y = \sqrt{16 - x^2}$ from $x = 0$ to $x = 4$

March 6, 2002