Arc Length
Demonstration Activity

1) Open the Arc Length Demonstration located at
http://demonstrations.wolfram.com/ArcLengthApproximation/

2) First get familiar with the various options. Adjust the slider for the number of line segments.

3) Describe in your own words what is being shown in the Arc Length demonstration.

4) What is the estimated arc length and how many line segments did you use?

5) Let $y = (x-1)^2$ on $[0, 3]$.

   a) Find the arc length using 3 line segments by hand. Check your result with the demonstration.

   b) Set up the integral to find the arc length exactly.

   c) Compute the integral using the fnInt command on your calculator. Compare to the exact value.