Calculus Worksheet

# Instructions

Solve the following problems. Provide your answers using proper notation and show your work for full credit.

# Problems

* 1. Find the limit:
  2. Evaluate the derivative:
  3. Determine the critical points of the function:
  4. Determine if the critical points are maximum, minimum, or saddle points.
  5. Find the indefinite integral:
  6. Evaluate the definite integral:

1. Find the arc length of the curve given by the parametric equations: , , for .
2. Determine the convergence or divergence of the series: