QUIZ 5

1. (3 points) Evaluate $\int_1^\infty \frac{dx}{x^2}$.

2. (3 points) Find the arclength of the curve $(t^2 + 1, t^2 - 1)$ from $t = 0$ to $t = 4$.

3. (4 points) Find the surface area of the surface of revolution generated by rotating the curve $y = x^2, 0 \le x \le 1$ around the y-axis.