Calculus - Integral Calculus

Grade 12 | Difficulty: Medium

1. Evaluate the definite integral Integral(0 to 2) (x^2 - 1) dx.

2. Find the area enclosed between the curves y = x^2 and y = 2x.

3. Solve the improper integral Integral(1 to infinity) (1/x^2) dx.

4. Determine the length of the curve y = sqrt(x) from x = 1 to x = 4.

5. Find the volume of a solid obtained by rotating y = x^2 around the x-axis.