

Calculus - Integrals

Grade 10 | Difficulty: Hard

1. Evaluate $\int (3x^2 - 4x + 1) dx$.
2. Find the area under the curve $y = x^2$ between $x = 1$ and $x = 3$.
3. Solve the improper integral $\int_1^{\infty} (1/x^2) dx$.
4. Find the integral of $f(x) = 1/(x+1)$.
5. Determine the integral of $f(x) = \cos(x)$ from 0 to π .