Calculus - Derivatives
Grade 10 | Difficulty: Medium

1. Find d/dx of $f(x) = x^4 - 3x^2 + 2$.

2. Evaluate the derivative of $f(x) = \sin(x)$ at $x = \pi/4$.

3. Find the critical points of $f(x) = x^3 - 3x^2 + 4$.

4. Determine the local minima and maxima of $f(x) = x^3 - 6x^2 + 9x + 1$.

5. Differentiate $y = e^x \ln(x)$.