

Problem 1

Find the critical numbers of $f(x) = 2x^3 - 3x^2 - 36x$.

Problem 2

Find the critical numbers of $f(x) = \frac{x}{x^2 - x + 1}$.

Problem 3

Find the critical numbers of $f(x) = x^{1/3}(x + 2)$.

Problem 4

Find the critical numbers of $f(x) = 4x - \tan(x)$ that lie in the interval $[0, 2\pi]$.

Problem 5

Find the absolute minimum and maximum of $f(x) = x^3 - 6x^2 + 5$ on the interval $[-3, 5]$.

Problem 6

Find the absolute minimum and maximum of $f(x) = x^3 - 3x$ on the interval $[-3, 1.5]$.