

Newton's Method

Examples

1. Find the roots of $f(x) = x^3 - x + 1$.

Problems

2. Use Newton's method to estimate $\sqrt[4]{16.32}$.
3. Find the critical points of $g(x) = \sin(x) - x^2$
4. Find the critical points of $e^x + x^2$.
5. Find when $\cos x = x$.
6. Use Newton's method to estimate $\sqrt[3]{28}$.
7. Use Newton's method with two steps to estimate $\sqrt{5}$.
8. Use Newton's method to estimate $2^{0.1}$.