

Newton's Method

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1.

2.

Use Newton's method to estimate the one real solution of $x^3 + 3x + 1 = 0$. Start with $x_0 = 0$ and then find x_2 .

Use Newton's method to find the negative fourth root of 2 by solving the equation $x^4 - 2 = 0$. Start with $x_0 = -1$ and find x_2 .

Try It: Find the positive root of the equation $x^2 - 2 = 0$, Find a solution to three decimal places of precision.

Try It: Find the x-coordinate of the point where the curve $y = x^3 - x$ crosses the horizontal line $y = 1$ Find a solution to three decimal places of precision.