

A-REI, A-APR Solving a Simple Cubic Equation

Task

- Find all the values of x for which the equation $9x = x^3$ is true.
- Use graphing technology to graph $f(x) = x^3 - 9x$. Explain where you can see the answers from part (a) in this graph, and why.
- Someone attempts to solve $9x = x^3$ by dividing both sides by x , yielding $9 = x^2$, and going from there. Does this approach work? Why or why not?



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