

Dilations, Reflections, Translations, oh my! (Example 2)

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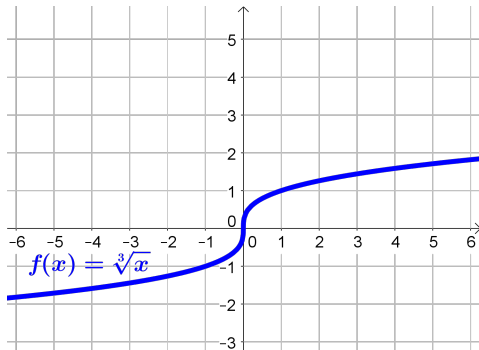
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Here, we want to start with the basic graph: $f(x) = \sqrt[3]{x}$



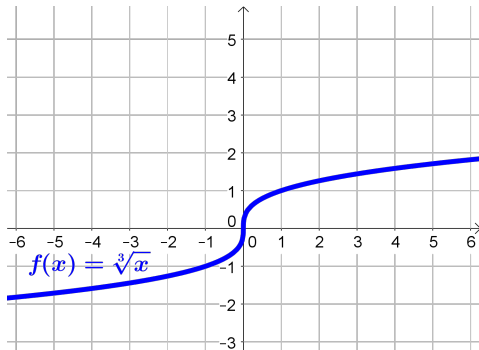
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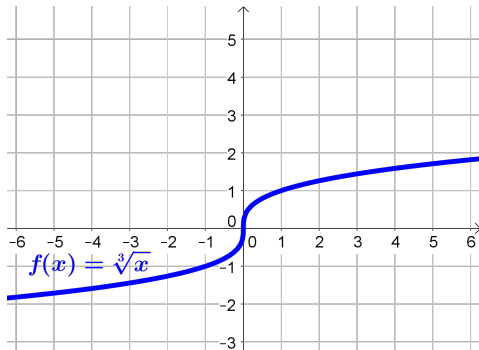
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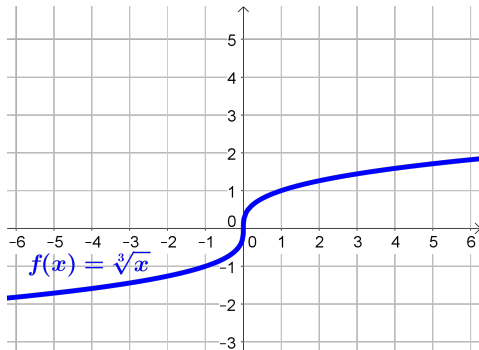
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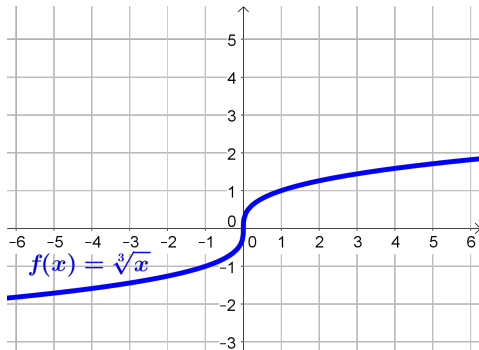
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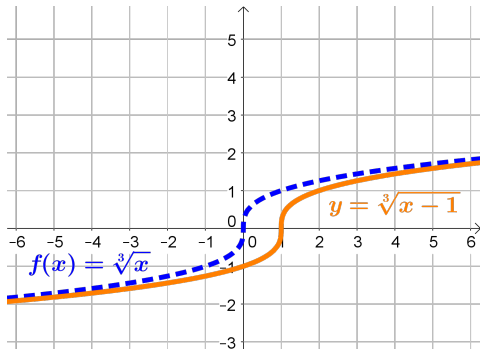
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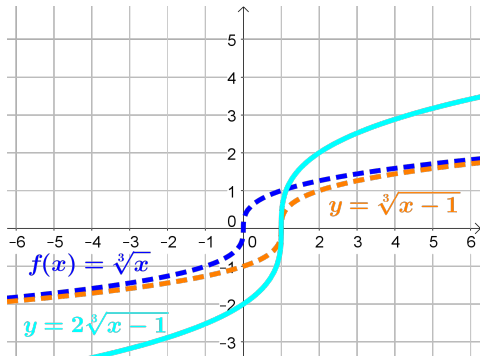
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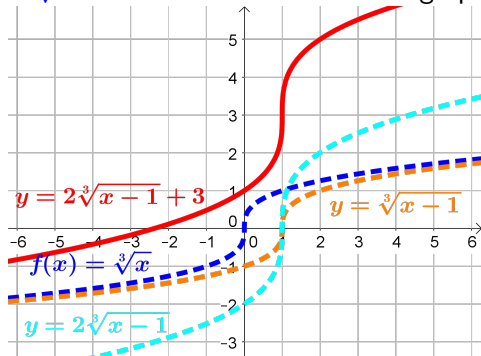
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The first change to happen to x in $\sqrt[3]{x}$ is **subtracting 1 from x**

Subtracting 1 from x causes a **horizontal shift** to the right by 1

$\sqrt[3]{x-1}$ by 2 stretches the graph vertically by 2

Adding 3 to **$2\sqrt[3]{x-1}$** will **translate** the graph up by 3



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