Revisiting Even Functions Algebraically

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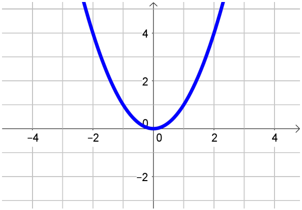

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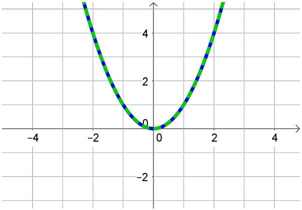

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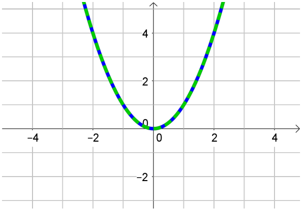

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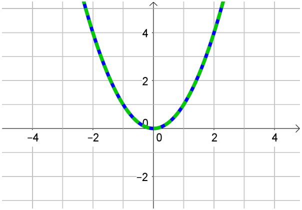
This gives us an algebraic way to check a geometric concept



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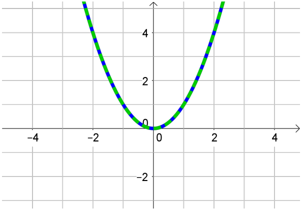

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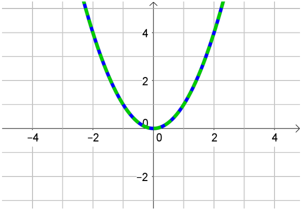

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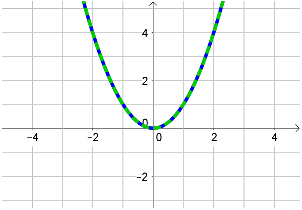

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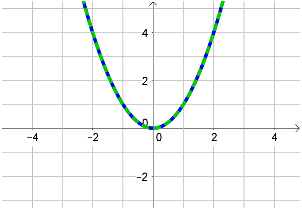

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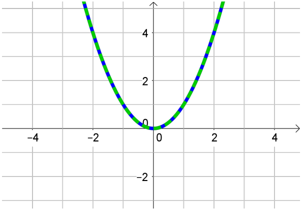

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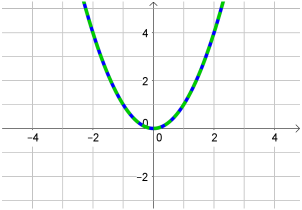

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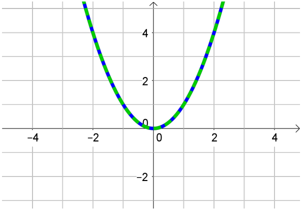

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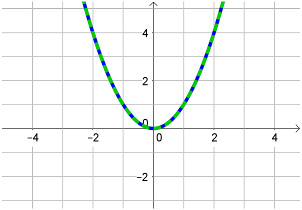

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Conclusion: Since $f(-x) = f(x)$ for the function $f(x) = x^2$, by our algebraic definition $f(x) = x^2$ is an *even* function.