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So, we know how to graph this

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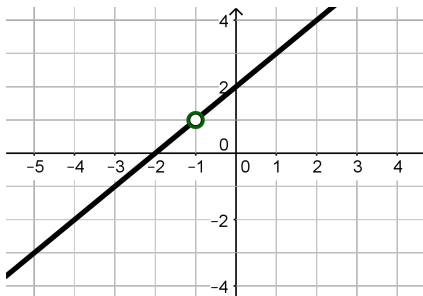
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Except $f(x)$ is undefined at $x = -1$

