

# Friendly Corecursion in Isabelle HOL



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# Context

Proof assistants = Tools for

Defining mathematical concepts

Proving facts about them

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What makes a good proof assistant?

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$$f(n) = \begin{cases} [] & \text{if } n \leq 1 \\ f(n/2) & \text{if } n > 1 \text{ and } n \text{ even} \\ n \# \# f(3 * n + 1) & \text{if } n > 1 \text{ and } n \text{ odd} \end{cases}$$



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# Isabelle Demo