We know `zero_ne_succ n` is a proof of `0 = succ n → False` -- but what if we have a hypothesis `succ n = 0`? It's the wrong way around!

The `symm` tactic changes a goal `x = y` to `y = x`, and a goal `x ≠ y` to `y ≠ x`. And `symm at h` does the same for a hypothesis `h`. We've proved $0 \neq 1$ and called the proof `zero_ne_one`; now try proving $1 \neq 0$.

Level completed!

Next

Goal:

`1 ≠ 0`

`intro h` Retry

Active Goal

Assumptions:

h : `1 = 0`

Goal:

`False`

`symm at h` Retry

Active Goal

Assumptions:

h : `0 = 1`

Goal:

`False`

`apply zero_ne_one at h` Retry

Active Goal

Assumptions:

h : `False`

Goal:

`False`

`exact h` Retry

`level completed! 🎉`

zero_ne_one

`: 0 ≠ 1`

`zero_ne_one` is a proof of `0 ≠ 1`.