## Tactic 1: Push the definitions around

## **Theorem**

If n is odd, then 3n + 5 is even.

## Proof.

- Assume n is odd.
- Then n = 2k + 1 for some  $k \in \mathbb{Z}$ .
- 3n + 5 = 3(2k + 1) + 5 = 6k + 8 = 2(3k + 4) is even.
- \*drop mic\*

