

## 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\*

