A harder case

Let $F : \mathbb{Z}^+ \to \mathbb{Z}$ be defined by

- $F(1) = 1$ and $F(2) = 0$
- $F(n) = F(n-2)$ if $n > 2$

Then for all positive integers n, $F(n) = n \mod 2$

Let's try to prove this by induction on n.

Let's make our Boolean statement $P(n)$ be:

- $F(n) = n \mod 2$

where $n \mod 2$ is the remainder after dividing n by 2.