# Proof Without Words: The Sum Of The First $n$ Odd Integers is a Perfect Square 

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$S=1+3+5+7+9+\ldots+(2 n-1)$


$$
\frac{S}{2}=\frac{1}{2} \cdot n \cdot n
$$

(Editors' note: Doubling $\frac{S}{2}$ from the bottom image yields the desired result.)

## References

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