Exercise

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September 3, 2025

Exercise from class

Proof. Since a is odd, we can write a as $a = 2m + 1$ for some integer m. Likewise, we can write $b = 2k + 1$ for some integer k.
Therefore,

$$a + b = 2m + 1 + 2k + 1 = 2(m + k + 1),$$

where $m + k + 1$ is an integer, since adding integers results in an integer. Thus $a + b$ is even.

□