1. closure

if $a, b \in O$, is $a+b \in O$?

odd + odd = Even (example: 3+5=8, even)

so closure fails immediately.

Since closure fails, it is not a group.

2. other axioms

Even if we ignored closure, we'd check;

Associativity: Addition is associative on integers, so it would be associative on any subset

Identity: Identity would be 0, but 0 is not an odd integer, so no identity inside O.

Inverse: For odd a, inverse under addition is -a, which is odd integers are closed under taking additive inverse but without closure and identity, irrelevant.