



## NATURAL NUMBERS EXERCISES

### Why

Some additional practice with natural numbers.

### Exercises

**Exercise 1.** *Show that if  $n$  is a natural number, then  $n^+ \neq n$ .*

**Exercise 2.** *Show that if  $n \neq 0$ , then there exists a natural number  $m$  so that  $n = m^+$ .*

**Exercise 3.** *Prove that  $\omega$  is infinite.*

**Exercise 4.** *Let  $E$  be a nonempty subset of a natural number. Show that there exists  $k \in E$  so that  $k \in m$  whenever  $m \in E$  and  $m \neq k$ .*



