

Next HW: 2.32 - 2.35 (sequence)

↳ prove that there are infinitely many primes.

<sup>use 2.32</sup>  
↓  
Key idea (2.33): If  $k$  is a natural number,  
we can find another number  $n$  ( $n$  much bigger  
than  $k$ ) so that none of

$2, 3, 4, 5, \dots, k-1, k$

are divisors of  $n$ .

Once you have this: Know  $n$  has a prime divisor  $p$   
(Thm 2.1), and  $p > k$ .