

Primality Test (Iterative)

- Input: Get a positive integer, N , from the user
- Handle Base Case (The Number 1):
 - IF N is equal to 1: N is NOT prime (it only has one factor). Stop.
- Iterative Check:
 - Start a loop with a test number, D , beginning at 2.
 - Continue this loop as long as D is less than N ($D < N$).
 - Inside the Loop (Conditional Check): For the current test number D :
 - IF the remainder of N divided by D is 0 ($N \% D == 0$):
 - Conclude that N is NOT prime (a factor other than 1 and N has been found). Stop the algorithm
 - ELSE: Increase D by 1 ($D = D + 1$) and continue the loop.
- If the loop finishes without the algorithm stopping, N IS a prime number.