

I.8 Primality Function

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1 Conclusions

- My primality function works first by accepting an input variable. The function proceeds to check if the number is 0 or 1, in which it will return false because neither are prime. The function follows with an else if statement testing if the number is 2, it will return true since 2 is prime, this line was added after I created all the other statements as it was necessary and would return anything for 2 otherwise. The program now knows that the number is not 0,1, or 2, so it will proceed to check if it is divisible by 2, or divisible by a number greater than two but less than itself. If these are satisfied then the function returns false, otherwise the function returns true (when the input variable is prime).
- To find the nth prime, the function begins by creating an empty list of primes and declaring the first prime (which is 2). The program will loop so long as the list does not exceed the amount of n. This way the program can store the primes so it can later return the last one. While the loop is true, a loop runs placing prime numbers into a list up until the list reaches one less than the size of n. The program then returns the last element of the list.