

Answers: Algorithms and Complexity

1. Check Prime – Calculate the Complexity (Worst Case)

Answer: linear

2. Check Prime – Calculate the Complexity (Best Case)

Answer: constant

3. Fast Check Prime – Calculate the Complexity

Answer: \sqrt{n}

4. First N Primes – Calculate the Complexity

Answer: $n\sqrt{n}$

5. First N Primes – Calculate the Memory Consumption

Answer: linear

6. Primes in Range – Calculate the Complexity

Answer: $n\sqrt{n}$

7. Compare Execution Speed

It depends on the computer.