# Competitive Programming (Lecture - 1)

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## 1   An Introduction to Programming Contests

– Solve problems based on mathematics, algorithms, data structures etc.
– Timed environment.
– Avoid basic errors (Time Limit Exceeded, Memory Limit Exceeded, Compilation error etc.)
– Assume 100000000 (1e8) operations per second

## 2   Basics of C++

– Basic I/O
– Conditional statements
– Loops
– Functions
– Structures
– Time Complexity Analysis, Big O ($\mathcal{O}$)

## 3   Standard Template Library (STL)

– std::pair
– std::vector
– std::sort
– std::set
– std::map
– std::stack
– std::queue
– Research other STL functionalities

## 4   Long contest - 1