

ICPC Sessions OR How to Solve Problems

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- The most prestigious global programming competition (since 1977)!

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- We are part of the Northwestern European region
- Top 3 teams will qualify for the Finals in St. Petersburg
- This means we will make Germany, Belgium, the Netherlands and others cry!

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- Actually using algorithms to solve problems!
- Beating Cambridge (and everyone else)!

Why study this?

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How to Prepare

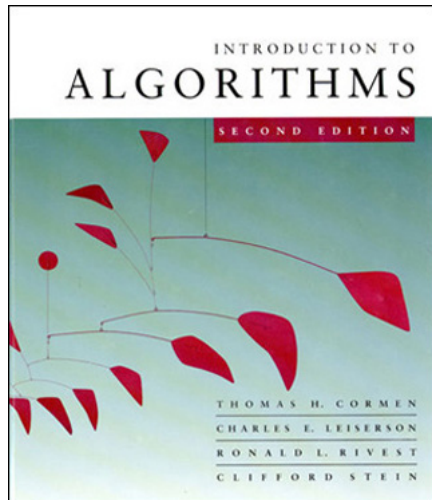
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Recommended Book(s)

- **Introduction to Algorithms**
 - Thomas Cormen, Charles Leiserson, Ronald Rivest, Clifford Stein
- **Algorithms in C/C++/Java/**
 - Robert Sedgewick



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Can you?

Binary Search

```
1  int binary_search(int *array, int n, int x)
2  {
3      int lo = 0, hi = n - 1;
4      while (lo < hi) {
5          int mid = lo + (hi - lo) / 2;
6          if (array[mid] < x)
7              lo = mid + 1;
8          else hi = mid;
9      }
10
11     if (lo == hi && array[lo] == x)
12         return lo;
13     return -1;
14 }
```

Ad-hoc Problems

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- There is always at least one in competitions

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Don't Panic!

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For this week, try your hand at these questions (all ad-hoc):

http://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=121

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Thank You