# Codeforces Online Judge

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# Codeforces Online Judge - Phase 3.1

# Lecture Agenda

We will discuss in this lecture the following topics

1- Divide and Conquer Problems [5 problems]

2- Graph Problems [5 problems]

3- String Problems [10 problems]

4- Data Structures Problems [25 problems]

5- Mathematical Problems [25 problems]

6- Greedy Problems [25 problems]

Let's
STARTUP

# Lecture Agenda

# Divide and Conquer Problems

[01]  CF-Round 481:  http://codeforces.com/contest/978/problem/C

[02]  CF-Round 118:  http://codeforces.com/contest/185/problem/A

[03]  CF-Round 153:  http://codeforces.com/contest/251/problem/A

[04]  CF-Round 478:  http://codeforces.com/contest/975/problem/C

[05]  CF-Round 140:  http://codeforces.com/contest/226/problem/A

# Divide and Conquer Problems Solution

[01]  CF-Round 481:  https://codeforces.com/contest/978/submission/54802156

[02]  CF-Round 118:  https://codeforces.com/contest/185/submission/54967377

[03]  CF-Round 153:  https://codeforces.com/contest/251/submission/55388335

[04]  CF-Round 478:  https://codeforces.com/contest/975/submission/55708404

[05]  CF-Round 140:  https://codeforces.com/contest/226/submission/55972567

# Lecture Agenda

✓ Section 1:  Divide and Conquer Problems

**Section 2:  Graph Problems**

Section 3:  String Problems

Section 4:  Data Structures Problems

Section 5:  Mathematical Problems

Section 6:  Greedy Problems

# Graph Problems

[01]   CF-Round 134:   http://codeforces.com/contest/217/problem/A

[02]   CF-Round 236:   http://codeforces.com/contest/403/problem/A

[03]   CF-Round 245:   http://codeforces.com/contest/429/problem/A

[04]   CF-Round 321:   http://codeforces.com/contest/580/problem/C

[05]   CF-Round 360:   http://codeforces.com/contest/687/problem/A

[06]   CF-Round 385:   http://codeforces.com/contest/744/problem/A

[07]   CF-Round 403:   http://codeforces.com/contest/781/problem/A

[08]   CF-Round 428:   http://codeforces.com/contest/839/problem/C

# Graph Problems Solution

[01]  CF-Round 134:  https://codeforces.com/contest/217/submission/55386740

[02]  CF-Round 236:  https://codeforces.com/contest/403/submission/56040036

[03]  CF-Round 245:  https://codeforces.com/contest/429/submission/56166759

[04]  CF-Round 321:  https://codeforces.com/contest/580/submission/56670516

[05]  CF-Round 360:  https://codeforces.com/contest/687/submission/65296821

[06]  CF-Round 385:  https://codeforces.com/contest/744/submission/65261971

[07]  CF-Round 403:  https://codeforces.com/contest/781/submission/65256784

[08]  CF-Round 428:  https://codeforces.com/contest/839/submission/80290052

# Lecture Agenda

✔ Section 1: Divide and Conquer Problems

✔ Section 2: Graph Problems

**Section 3: String Problems**

Section 4: Greedy Problems

Section 5: Mathematical Problems

Section 6: Greedy Problems

# String Problems

[01]  CF-Round 490:  http://codeforces.com/contest/999/problem/C

[02]  CF-Round 177:  http://codeforces.com/contest/288/problem/A

[03]  CF-Round 460:  http://codeforces.com/contest/919/problem/C

[04]  CF-Round 162:  http://codeforces.com/contest/264/problem/A

[05]  CF-Round 211:  http://codeforces.com/contest/363/problem/C

[06]  CF-Round 235:  http://codeforces.com/contest/401/problem/C

[07]  CF-Round 270:  http://codeforces.com/contest/472/problem/C

[08]  CF-Round 277.5:   http://codeforces.com/contest/489/problem/C

[09]  CF-Round 389:  http://codeforces.com/contest/752/problem/C

[10]  CF-Round 451:  http://codeforces.com/contest/898/problem/C

[11]  CF-Round 472:  http://codeforces.com/contest/956/problem/A

# String Problems Solution

[01]  CF-Round 490:  https://codeforces.com/contest/999/submission/54833488

[02]  CF-Round 177:  https://codeforces.com/contest/288/submission/54970066

[03]  CF-Round 460:  https://codeforces.com/contest/919/submission/55324148

[04]  CF-Round 162:  https://codeforces.com/contest/264/submission/55395618

[05]  CF-Round 211:  https://codeforces.com/contest/363/submission/55422399

[06]  CF-Round 235:  https://codeforces.com/contest/401/submission/55426233

[07]  CF-Round 270:  https://codeforces.com/contest/472/submission/55432205

[08]  CF-Round 277.5:  https://codeforces.com/contest/489/submission/55433250

[09]  CF-Round 389:  https://codeforces.com/contest/752/submission/55681765

[10]  CF-Round 451:  https://codeforces.com/contest/898/submission/55684228

[11]  CF-Round 472:  https://codeforces.com/contest/956/submission/55685710

# Lecture Agenda

✔ Section 1: Divide and Conquer Problems

✔ Section 2: Graph Problems

✔ Section 3: String Problems

**Section 4: Data Structures Problems**

Section 5: Mathematical Problems

Section 6: Greedy Problems

# Data Structures Problems

[01]  CF-Round 124:  http://codeforces.com/contest/197/problem/C

[02]  CF-Round 402:  http://codeforces.com/contest/779/problem/C

[03]  CF-Round 145:  http://codeforces.com/contest/234/problem/C

[04]  CF-Round 429:  http://codeforces.com/contest/840/problem/A

[05]  CF-Round 445:  http://codeforces.com/contest/889/problem/A

[06]  CF-Round 494:  http://codeforces.com/contest/1003/problem/C

[07]  CF-Round 116:  http://codeforces.com/contest/180/problem/C

[08]  CF-Round 160:  http://codeforces.com/contest/261/problem/A

[09]  CF-Round 304:  http://codeforces.com/contest/546/problem/C

[10]  CF-Round 348:  http://codeforces.com/contest/668/problem/A

[11]  CF-Round 350:  http://codeforces.com/contest/670/problem/C

[12]  CF-Round 387:  http://codeforces.com/contest/747/problem/C

[13]  CF-Round 495:  http://codeforces.com/contest/1004/problem/C

[14]  CF-Round 496:  http://codeforces.com/contest/1005/problem/C

[15]  CF-Round 170:  http://codeforces.com/contest/277/problem/A

[16]  CF-Round 179:  http://codeforces.com/contest/295/problem/A

# Data Structures Problems Solution

[01]   CF-Round 124:   https://codeforces.com/contest/197/submission/54825863

[02]   CF-Round 402:   https://codeforces.com/contest/779/submission/80290382

[03]   CF-Round 145:   https://codeforces.com/contest/234/submission/54968883

[04]   CF-Round 429:   https://codeforces.com/contest/840/submission/55006296

[05]   CF-Round 445:   https://codeforces.com/contest/889/submission/55075308

[06]   CF-Round 494:   https://codeforces.com/contest/1003/submission/55324807

[07]   CF-Round 116:   https://codeforces.com/contest/180/submission/55327561

[08]   CF-Round 160:   https://codeforces.com/contest/261/submission/55392885

[09]   CF-Round 304:   https://codeforces.com/contest/546/submission/55492953

[10]   CF-Round 348:   https://codeforces.com/contest/668/submission/55503132

[11]   CF-Round 350:   https://codeforces.com/contest/670/submission/55519183

[12]   CF-Round 387:   https://codeforces.com/contest/747/submission/55615965

[13]   CF-Round 495:   https://codeforces.com/contest/1004/submission/55740841

[14]   CF-Round 496:   https://codeforces.com/contest/1005/submission/55743175

[15]   CF-Round 170:   https://codeforces.com/contest/277/submission/55996855

[16]   CF-Round 179:   https://codeforces.com/contest/295/submission/56002994

# Data Structures Problems

[17]  CF-Round 215:  http://codeforces.com/contest/367/problem/A

[18]  CF-Round 225:  http://codeforces.com/contest/383/problem/A

[19]  CF-Round 345:  http://codeforces.com/contest/650/problem/A

[20]  CF-Round 351:  http://codeforces.com/contest/674/problem/A

[21]  CF-Round 362:  http://codeforces.com/contest/696/problem/A

[22]  CF-Round 433:  http://codeforces.com/contest/853/problem/A

[23]  CF-Round 453:  http://codeforces.com/contest/901/problem/A

[24]  CF-Round 112:  http://codeforces.com/contest/165/problem/C

[25]  CF-Round 119:  http://codeforces.com/contest/187/problem/A

# Data Structures Problems Solution

[17]  CF-Round 215:  https://codeforces.com/contest/367/submission/56029119

[18]  CF-Round 225:  https://codeforces.com/contest/383/submission/56029448

[19]  CF-Round 345:  https://codeforces.com/contest/650/submission/57884507

[20]  CF-Round 351:  https://codeforces.com/contest/674/submission/57887314

[21]  CF-Round 362:  https://codeforces.com/contest/696/submission/65286804

[22]  CF-Round 433:  https://codeforces.com/contest/853/submission/70975141

[23]  CF-Round 453:  https://codeforces.com/contest/901/submission/80291641

[24]  CF-Round 112:  https://codeforces.com/contest/165/submission/65336435

[25]  CF-Round 119:  https://codeforces.com/contest/187/submission/73494134

# Lecture Agenda

✓ Section 1:  Divide and Conquer Problems

✓ Section 2:  Graph Problems

✓ Section 3:  String Problems

✓ Section 4:  Data Structures Problems

**Section 5:  Mathematical Problems**

Section 6:  Greedy Problems

# Mathematical Problems

[01]  CF-Round 411:  http://codeforces.com/contest/804/problem/A
[02]  CF-Round 441:  http://codeforces.com/contest/875/problem/A
[03]  CF-Round 377:  http://codeforces.com/contest/732/problem/C
[04]  CF-Round 397:  http://codeforces.com/contest/765/problem/C
[05]  CF-Round 440:  http://codeforces.com/contest/871/problem/A
[06]  CF-Round 185:  http://codeforces.com/contest/311/problem/A
[07]  CF-Round 280:  http://codeforces.com/contest/492/problem/C
[08]  CF-Round 292:  http://codeforces.com/contest/516/problem/A
[09]  CF-Round 318:  http://codeforces.com/contest/573/problem/A
[10]  CF-Round 322:  http://codeforces.com/contest/581/problem/C
[11]  CF-Round 356:  http://codeforces.com/contest/679/problem/A
[12]  CF-Round 113:  http://codeforces.com/contest/166/problem/C
[13]  CF-Round 167:  http://codeforces.com/contest/273/problem/A
[14]  CF-Round 194:  http://codeforces.com/contest/333/problem/A
[15]  CF-Round 234:  http://codeforces.com/contest/400/problem/C
[16]  CF-Round 252:  http://codeforces.com/contest/441/problem/C

# Mathematical Problems Solution

[01]  CF-Round 411:   https://codeforces.com/contest/804/submission/54802792

[02]  CF-Round 441:   https://codeforces.com/contest/875/submission/54830455

[03]  CF-Round 377:   https://codeforces.com/contest/732/submission/55005401

[04]  CF-Round 397:   https://codeforces.com/contest/765/submission/55005794

[05]  CF-Round 440:   https://codeforces.com/contest/871/submission/55071624

[06]  CF-Round 185:   https://codeforces.com/contest/311/submission/55404072

[07]  CF-Round 280:   https://codeforces.com/contest/492/submission/55433983

[08]  CF-Round 292:   https://codeforces.com/contest/516/submission/55492147

[09]  CF-Round 318:   https://codeforces.com/contest/573/submission/55496752

[10]  CF-Round 322:   https://codeforces.com/contest/581/submission/55499415

[11]  CF-Round 356:   https://codeforces.com/contest/679/submission/55520004

[12]  CF-Round 113:   https://codeforces.com/contest/166/submission/55959283

[13]  CF-Round 167:   https://codeforces.com/contest/273/submission/55994073

[14]  CF-Round 194:   https://codeforces.com/contest/333/submission/56027832

[15]  CF-Round 234:   https://codeforces.com/contest/400/submission/56064930

[16]  CF-Round 252:   https://codeforces.com/contest/441/submission/56076320

# Mathematical Problems

[17]  CF-Round 306:  http://codeforces.com/contest/550/problem/C

[18]  CF-Round 319:  http://codeforces.com/contest/576/problem/A

[19]  CF-Round 368:  http://codeforces.com/contest/707/problem/C

[20]  CF-Round 384:  http://codeforces.com/contest/743/problem/C

[21]  CF-Round 415:  http://codeforces.com/contest/809/problem/A

[22]  CF-Round 438:  http://codeforces.com/contest/868/problem/C

[23]  CF-Round 444:  http://codeforces.com/contest/887/problem/C

[24]  CF-Round 493:  http://codeforces.com/contest/997/problem/A

[25]  CF-Round 499:  http://codeforces.com/contest/1010/problem/A

[26]  CF-Round 500:  http://codeforces.com/contest/1012/problem/A

# Mathematical Problems Solution

[17] CF-Round 306: https://codeforces.com/contest/550/submission/56381236

[18] CF-Round 319: https://codeforces.com/contest/576/submission/56466682

[19] CF-Round 368: https://codeforces.com/contest/707/submission/65286087

[20] CF-Round 384: https://codeforces.com/contest/743/submission/65262070

[21] CF-Round 415: https://codeforces.com/contest/809/submission/65246138

[22] CF-Round 438: https://codeforces.com/contest/868/submission/70999296

[23] CF-Round 444: https://codeforces.com/contest/887/submission/71000853

[24] CF-Round 493: https://codeforces.com/contest/997/submission/65312050

[25] CF-Round 499: https://codeforces.com/contest/1010/submission/80291939

[26] CF-Round 500: https://codeforces.com/contest/1012/submission/73501127

# Lecture Agenda

✓ Section 1: Divide and Conquer Problems

✓ Section 2: Graph Problems

✓ Section 3: String Problems

✓ Section 4: Data Structures Problems

✓ Section 5: Mathematical Problems

**Section 6: Greedy Problems**

# Greedy Problems

[01]   CF-Round 157:   http://codeforces.com/contest/258/problem/A

[02]   CF-Round 263:   http://codeforces.com/contest/461/problem/A

[03]   CF-Round 346:   http://codeforces.com/contest/659/problem/C

[04]   CF-Round 479:   http://codeforces.com/contest/977/problem/C

[05]   CF-Round 104:   http://codeforces.com/contest/145/problem/A

[06]   CF-Round 175:   http://codeforces.com/contest/285/problem/C

[07]   CF-Round 275:   http://codeforces.com/contest/482/problem/A

[08]   CF-Round 294:   http://codeforces.com/contest/519/problem/C

[09]   CF-Round 342:   http://codeforces.com/contest/625/problem/C

[10]   CF-Round 452:   http://codeforces.com/contest/899/problem/C

[11]   CF-Round 497:   http://codeforces.com/contest/1007/problem/A

[12]   CF-Round 498:   http://codeforces.com/contest/1006/problem/C

[13]   CF-Round 128:   http://codeforces.com/contest/203/problem/C

[14]   CF-Round 136:   http://codeforces.com/contest/220/problem/A

[15]   CF-Round 183:   http://codeforces.com/contest/303/problem/A

[16]   CF-Round 186:   http://codeforces.com/contest/313/problem/C

# Greedy Problems Solution

[01]  CF-Round 157:  https://codeforces.com/contest/258/submission/54826365

[02]  CF-Round 263:  https://codeforces.com/contest/461/submission/54827237

[03]  CF-Round 346:  https://codeforces.com/contest/659/submission/54829988

[04]  CF-Round 479:  https://codeforces.com/contest/977/submission/54831835

[05]  CF-Round 104:  https://codeforces.com/contest/145/submission/54834320

[06]  CF-Round 175:  https://codeforces.com/contest/285/submission/54969501

[07]  CF-Round 275:  https://codeforces.com/contest/482/submission/54970373

[08]  CF-Round 294:  https://codeforces.com/contest/519/submission/55004236

[09]  CF-Round 342:  https://codeforces.com/contest/625/submission/55004714

[10]  CF-Round 452:  https://codeforces.com/contest/899/submission/55076669

[11]  CF-Round 497:  https://codeforces.com/contest/1007/submission/55325023

[12]  CF-Round 498:  https://codeforces.com/contest/1006/submission/55325779

[13]  CF-Round 128:  https://codeforces.com/contest/203/submission/55386488

[14]  CF-Round 136:  https://codeforces.com/contest/220/submission/55387559

[15]  CF-Round 183:  https://codeforces.com/contest/303/submission/55396619

[16]  CF-Round 186:  https://codeforces.com/contest/313/submission/55421609

# Greedy Problems

[17]  CF-Round 228:  http://codeforces.com/contest/388/problem/A

[18]  CF-Round 363:  http://codeforces.com/contest/698/problem/A

[19]  CF-Round 486:  http://codeforces.com/contest/988/problem/C

[20]  CF-Round 485:  http://codeforces.com/contest/987/problem/C

[21]  CF-Round 106:  http://codeforces.com/contest/149/problem/C

[22]  CF-Round 164:  http://codeforces.com/contest/268/problem/C

[23]  CF-Round 166:  http://codeforces.com/contest/271/problem/C

[24]  CF-Round 240:  http://codeforces.com/contest/414/problem/A

[25]  CF-Round 274:  http://codeforces.com/contest/480/problem/A

# Greedy Problems Solution

[17]   CF-Round 228:   https://codeforces.com/contest/388/submission/55424474

[18]   CF-Round 363:   https://codeforces.com/contest/698/submission/55613761

[19]   CF-Round 486:   https://codeforces.com/contest/988/submission/55720699

[20]   CF-Round 485:   https://codeforces.com/contest/987/submission/79967616

[21]   CF-Round 106:   https://codeforces.com/contest/149/submission/55957161

[22]   CF-Round 164:   https://codeforces.com/contest/268/submission/55973063

[23]   CF-Round 166:   https://codeforces.com/contest/271/submission/55991444

[24]   CF-Round 240:   https://codeforces.com/contest/414/submission/56070501

[25]   CF-Round 274:   https://codeforces.com/contest/480/submission/56079189

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✓ Section 1: Divide and Conquer Problems

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