hello ALGO

USACO(미국정보올림피아드)

응시 메뉴얼

hello ALGO

1. 회원가입

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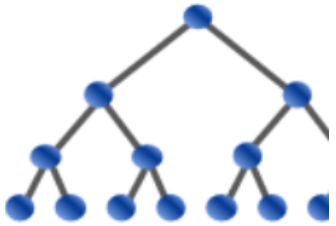
USA Computing Olympiad



OVERVIEW | TRAINING | CONTESTS | HISTORY | STAFF | RESOURCES

OUR MISSION

The USACO supports computing education in the USA and worldwide by identifying, motivating, and training high-school computing students at all levels. We provide:

- Hundreds of hours of free on-line training resources that students can use to improve their programming and computational problem-solving skills.
- On-line programming contests (roughly six per year) for students at all levels.

YOUR ACCOUNT

Not currently logged in.

Username:

Password:

Forgot password?

Login | Register for New Account

1. 계정 생성

- USACO.org 접속
- Register for New Account 클릭

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Create New Account

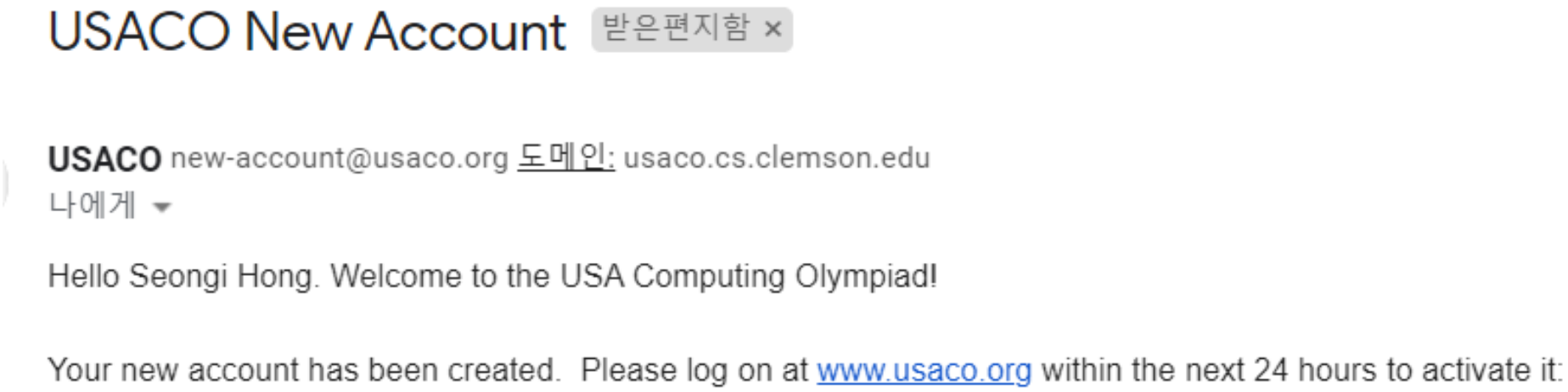
Register here for a personalized username for the USACO contest system. Your password will be sent to you immediately via email (check your spam folder if you do not see it right away). You can change your password later by editing your account details. All are welcome to participate in USACO contests and training, including students and non-students, USA and non-USA residents.

Note: Please enter your real name, since this is how you will be identified in our contest results. Fake or unacceptable personal names will not receive contest results and may be deleted at any time without warning!

Username:		
Email Address:		
First / Given Name:		(like John or Jane)
Last / Family Name:		(like Smith)
School:		
Graduation Year:		(set to 9999 if you are past high school / secondary school)

2. 개인정보입력

- 아이디(별명), 이메일 주소, 이름, 성, 학교 , 고등학교 예상 졸업 년도 기입



USACO New Account 받은편지함 ×

USACO new-account@usaco.org 도메인: usaco.cs.clemson.edu
나에게

Hello Seongi Hong. Welcome to the USA Computing Olympiad!

Your new account has been created. Please log on at www.usaco.org within the next 24 hours to activate it:

3. 이메일 인증

- 기입한 메일로 온 패스워드 확인 후 접속(24시간내)

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2. 시험응시

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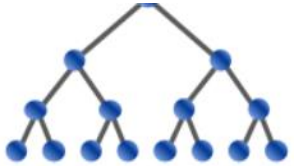

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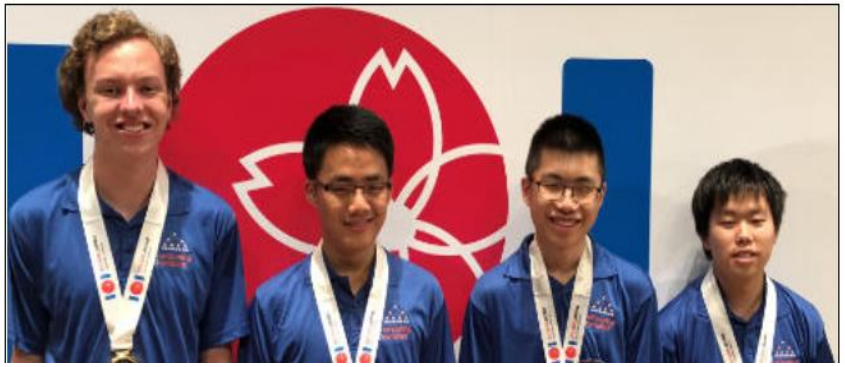
Quick note: an email announcement of the USACO 2018-2019 season just went out on the CSTA (computer science teacher's association) mailing list. It contained an unfortunate typo regarding proctoring of our contests. Our contests do NOT require proctoring or pre-registration.

FIRST PLACE AT IOI 2018!



YOUR ACCOUNT

Welcome, **Seongi Hong**

Edit Account Settings | Logout

2018-2019 SCHEDULE

Dec 14-17: First Contest
Jan 18-21: Second Contest
Feb 22-25: Third Contest
Mar 29-Apr 1: US Open
May 23-Jun 1: Training Camp
TBA: IOI 2019 in Azerbaijan

1. 로그인

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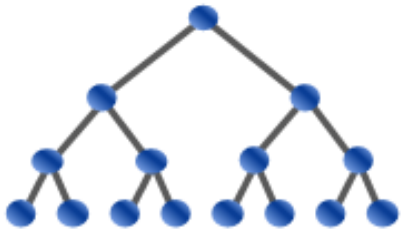

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DECEMBER CONTEST

The USACO 2019 December contest is available from December 13 through December 16. The contest is 4 hours in length, and can be taken any time during the larger contest window. For further details, and instructions on how to start the contest:

Click Here to Access the Contest Site

YOUR ACCOUNT

Not currently logged in.

Username:

Password:

Forgot password?

Login | Register for New Account

2. 시험 응시 단추 클릭

- (시험 기간에 접속하면 홈페이지에 뜸)

2 **Lemonade Line**
View problem | Test data | Solution

3 **Multiplayer Moo**
View problem | Test data | Solution

USACO 2018 US Open Contest, Bronze

The bronze division had 812 total participants, of whom 657 were pre-college students. All competitors who scored 700 or higher on this contest are automatically promoted to the silver division. Detailed results for all those promoted are here.

1 **Team Tic Tac Toe**
View problem | Test data | Solution

2 **Milking Order**
View problem | Test data | Solution

3 **Family Tree**
View problem | Test data | Solution

Final Remarks

3. 시험페이지에서 주의사항 확인 후 응시하기

- 응시 시작부터 4시간 카운트 다운 시작

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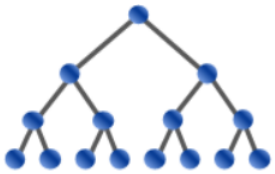

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USACO 2018 US OPEN CONTEST, BRONZE
PROBLEM 1. TEAM TIC TAC TOE

Return to Problem List

Contest has ended.

Analysis mode

English (en)

Farmer John owns 26 cows, which by happenstance all have names starting with different letters of the alphabet, so Farmer John typically refers to each cow using her first initial -- a character in the range $A \ldots Z$.

The cows have recently become fascinated by the game of tic-tac-toe, but since they don't like the fact that only two cows can play at a time, they have invented a variant where multiple cows can play at once! Just like with regular tic-tac-toe, the game is played on a 3×3 board, only instead of just Xs and Os, each square is marked with a single character in the range $A \ldots Z$ to indicate the initial of the cow who claims that square.

An example of a gameboard might be:

4. 문제 풀이 시작

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3. 제출방법

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1. Solve a problem with scanf & printf

```cpp
#include <cstdio>
#include <algorithm>
using namespace std;

int V[3], A[3];
int main() {

    for (int i=0; i<3; ++i)
        scanf("%d%d", &V[i], &A[i]);

    for (int i=0; i<100; ++i) {
        int a = i%3 , b = (i+1)%3;
        int t = min(A[a], V[b] - A[b]);
        A[a] -= t;
        A[b] += t;
    }

    printf("%d\n%d\n%d\n", A[0], A[1], A[2]);
    return 0;

}
```

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2. Check input and output file name

USACO 2018 DECEMBER CONTEST, BRONZE
PROBLEM 1. MIXING MILK

Return to Problem List

Contest has ended.

Analysis mode

English (en)

Farming is competitive business -- particularly milk production. Farmer John figures that if he doesn't innovate in his milk production methods, his dairy business could get creamed!

Fortunately, Farmer John has a good idea. His three prize dairy cows Bessie, Elsie, and Mildred each produce milk with a slightly different taste, and he plans to mix these together to get the perfect blend of flavors.

To mix the three different milks, he takes three buckets containing milk from the three cows. The buckets may have different sizes, and may not be completely full. He then pours bucket 1 into bucket 2, then bucket 2 into bucket 3, then bucket 3 into bucket 1, then bucket 1 into bucket 2, and so on in a cyclic fashion, for a total of 100 pour operations (so the 100th pour would be from bucket 1 into bucket 2). When Farmer John pours from bucket a into bucket b, he pours as much milk as possible until either bucket a becomes empty or bucket b becomes full.

Please tell Farmer John how much milk will be in each bucket after he finishes all 100 pours.

INPUT FORMAT (file mixmilk.in):

The first line of the input file contains two space-separated integers: the capacity c_1 of the first bucket, and the amount of milk m_1 in the first bucket. Both c_1 and m_1 are positive and at most 1 billion, with $c_1 \geq m_1$. The second and third lines are similar, containing capacities and milk amounts for the second and third buckets.

OUTPUT FORMAT (file mixmilk.out):

Please print three lines of output, giving the final amount of milk in each bucket, after 100 pour operations.

3. Insert following lines at the beginning of your code

- freopen(“file_name.in", "r", stdin);
- freopen(“file_name.out", "w", stdout);

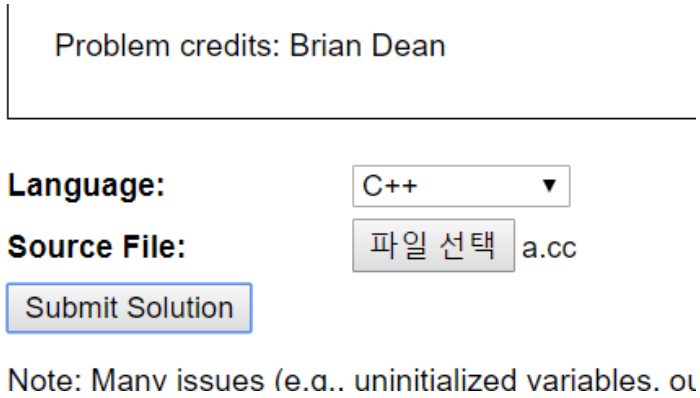
```cpp
#include <cstdio>
#include <algorithm>
using namespace std;

int V[3], A[3];
int main() {
    freopen("mixmilk.in", "r", stdin);
    freopen("mixmilk.out", "w", stdout);

    for (int i=0; i<3; ++i)
        scanf("%d%d", &V[i], &A[i]);

    for (int i=0; i<100; ++i) {
        int a = i%3 , b = (i+1)%3;
```

4. submit


Problem credits: Brian Dean
Language:
C++
Source File:
파일 선택
a.cc
Submit Solution
Note: Many issues (e.g., uninitialized variables, ou

warning

- If you want to debug your program, comment out freopen statements unless you can't use keyboard input and screen output.

```cpp
#include <cstdio>
#include <algorithm>
using namespace std;

int V[3], A[3];
int main() {
    // freopen("mixmilk.in", "r", stdin);
    // freopen("mixmilk.out", "w", stdout);

    for (int i=0; i<3; ++i)
        scanf("%d%d", &V[i], &A[i]);
```

Good Luck ☺

응시생 모두 좋은 결과가 있길

기원합니다!