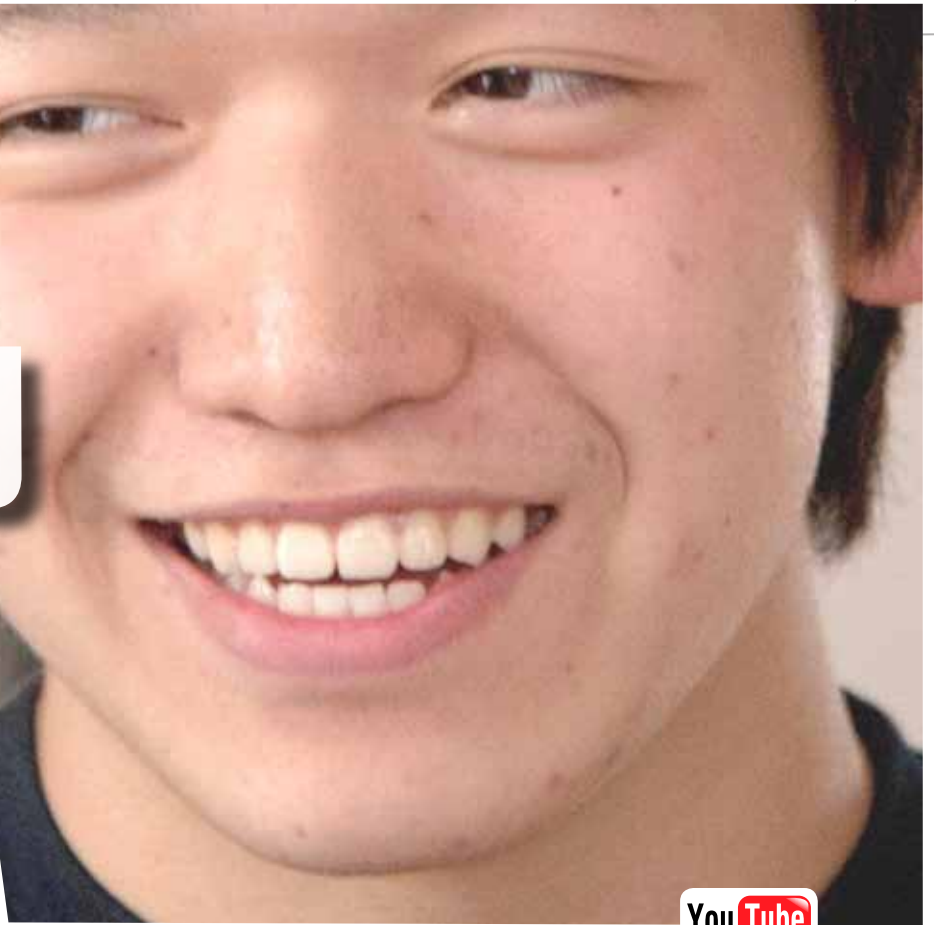# DAILY NEWS

news from the 24th International Olympiad in Informatics

PHOTO by CRISTINA SALI

go! go! johnny HO!

Superstars

Johnny Ho, 17 years of age, is the winner of IOI2012. After stiff competition during the two contests, this American boy from California has reached the top of the scoreboard with 600 points, full marks. He was followed by a close second, **Gennady Korotkevich** (the 2011 IOI champion), who had scored just a few points less on Tuesday and was also able to achieve a full grade today. A young Chinese contestant **Yuzhou Gu** was third in the final ranking

Leaving the competition hall, Ho remarked to our interviewer "Today's problems were pretty hard. But I'm very proud and happy".

Congratulations everybody!

PHOTO by CLAUDIO FOCO

calendar

Friday 28

H	CONTESTANTS	LEADERS	VISITORS
06:00 - 07:00	Breakfast		
07:00 - 08:00	Transfer to Venezia		
08:00 - 09:00			
09:00 - 10:00	Tour to Venezia		
10:00 - 11:00			
11:00 - 12:00			
12:00 - 13:00	Lunch		
13:00 - 14:00			
14:00 - 15:00	Tour to Venezia		
15:00 - 16:00			
16:00 - 17:00			
17:00 - 18:00			
18:00 - 19:00	Transfer to Venezia		
19:00 - 20:00			
20:00 - 21:00	Dinner	Dinner	Dinner
21:00 - 22:00			
22:00 - 23:00	Free Time/Activities	Meetings	Free Time
23:00 - 00:00			

Final competition day

The second and final day of the competition began with a very early trip to Montichiari where the contestants immediately took their position at their respective computers. They were all very nervous and concentrated, so it wasn't possible to interview them prior to the problem solving. The tasks took a total of 5 hours and the race between the competitors was a tough one.

The winner achieved the maximum possible score, which is awesome, but it should not be forgotten that the rest of the field was incredibly strong, making for a gripping contest, and some exceptional results. It was also good to see a healthy mix of nations at the top, with twelve represented in the top twenty. Many will go home with gold, silver or bronze medals, others with just the memories and the experience, maybe to compete again another day.

Hip hip hurrah for all our IOI superstars!

FOCUS

Luigi Laura, the leader of the Italian team, comments on the competition. "Odometer" was the hardest problem of the first day. Contestants had to forget all they knew about informatics and programming, because in this case they had to write a program to make a simple machine move."

"My team found "The City" in the second half of the competition very hard, even though "The Last Supper" was intended to be the most difficult problem."

interview

Seeing the elevated technical level of the competition, we asked the current IOI president, Richard Forster to explain to us a few, basic rules.

Is the competition today separate from the one on Tuesday, or are the scores averaged out to get a final result?
So, during the IOI we use something called black box testing: the student's programs get tested against data which is unknown to those students. The programs are run and those programs produce an output which is then checked and if the programs produce the right output, in the right time and with the right constraints, then the students score marks for those problems.

I heard that the contestants have a possibility to debate their final results and ask for a re-evaluation of the questions. Is this true?
We have a system so that, if a student feels that their programs have been graded incorrectly during the competition, we can go back and sort out problems. But there is no discussion over whether the problems are correct or incorrect. They are tested on the data and once the scientific teams have determined that that data is correct, then the student's programs have to solve that data.

How does the grading of each question work? How do you average out to 100 points?
That varies between the different questions. There are different sets of test data and each time the program succeeds in a particular set of data, it scores points for that data. Those are then summed together and that gives the final score for that question.

How do the prizes of IOI work? Do they receive medals or are they also rewarded in some other ways?
I don't know. I don't know what we are doing this year.

No? It's a surprise? So we'll know later this evening or tomorrow?
We will find out, yes.
Thank you for your time!

PHOTO by CLAUDIO FOCO

ioi ITALY 2012

Touring the Lake

While the contestants were struggling over the final tasks, the visitors set off for a day of sunshine, culture and culinary enjoyment. The destination was Il Vittoriale degli Italiani a house-museum created by the poet, writer, war hero and aesthete **Gabriele D'Annunzio** to mirror his eclectic personality. The house contains ten thousand precious objects, works of art and an extensive library. We strolled through the surrounding botanical gardens snapping photos especially of Cruiser Puglia, a battleship given to D'Annunzio by the navy and which now stands in the grounds. A delicious three course lunch was served by students from Caterina de' Medici catering school. Then a quick stop to admire Art Nouveau frescos and architecture at Romantik Hotel Laurin. Our next appointment was Salò town hall where we were welcomed by the mayor and then admired the sixteenth century double bass made by Gasparo de Salò, inventor of the violin. The afternoon concluded with a guided tour of the renaissance cathedral of Salò. The beauty of the architecture and religious paintings will surely be remembered when our visitors return to their homes.

PHOTO by CRISTINA SALI

happy birthday

28 September
Nur Muhammad Shafiullah
(Bangladesh)

snack

Cotoletta alla Milanese

Slice of veal
Eggs
Ground breadcrumbs
Flour
Cotoletta alla Milanese is a meat dish born in Milan, Italy. Veal is the main ingredient, usually served with its rib. Before cooking, the veal is dredged in the flour, than dipped in the egg and finally dredged in the bread crumbs. The "Cotolette" (cutlets) are fried in melted butter and accompanied by french fries.

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be-OI nl @beoi_nl
@IOI2012 The Poland guide is passionate, but ours for Belgium deserves silver! #ioi2012 #myioi2012 pic.twitter.com/xzHPg7nV
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Veljko Vranić @VeljkoVranic
America has best single competitor on #IOI2012 ! Good job guys !
Expand

NicolettaRossiGanzer @DirectingNicl
@IOI2012 poet Gabriele d'Annunzio was a fashion victim!
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byte

Seneca
You should not fear you have wasted time and effort, if you learned for yourself.

ioi 2012
The 24th International Olympiad in Informatics
ITALY

games
BY THE MATEMATICA SENZA FRONTIERE ITALIAN TEAM
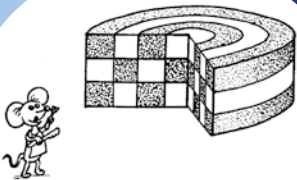
1 Cutting the cake

Aunt Susanna's cake is magnificent and full of surprises. When it is cut you can see that she must have spent a long time preparing it! It is made of two different cake mixes: one vanilla and one chocolate.
There are three layers of the same height. The cake mould in which it was baked is circular. The chess board pattern on each slice is made up of 12 rectangles of the same size. Just looking at it makes your mouth water!
Counting the light rectangles and the dark ones Gastone, one of Susanna's nephews, exclaims: "Look, it seems that in the cake there is as much vanilla as chocolate".

Is Gastone right?

2 Hidden faces

I placed on the table 6 identical cubes, as shown in the illustration.

Barbara is sitting opposite me: what does she read?
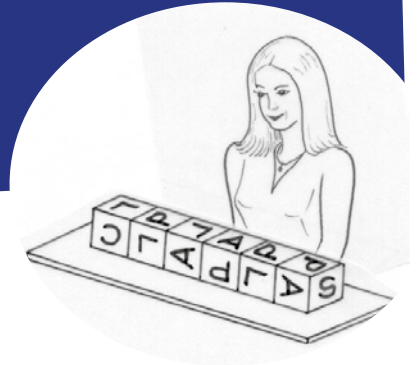
Game solution issue 5

Mathematical operations wheel
Start from 9 and proceed anticlockwise
(((((3x9)+2)-7):2)-5)x5=30
In all other cases :
3+2 and then clockwise=103
3x9 and then clockwise=60
3x5 and then clockwise = negative number
3x5 and then anticlockwise = 60

Additions grid
The sum 6 in the first column forces the content 1, 2, 3
The total 27 in the second row fixes the position of 3 and forces the remaining numbers to be 7, 8, 9. At the same time the total of the second column forces the numbers 7, 8, 9 and the sum of the first row fixes the position of 7.
Given the other conditions only the positions of the 9 and the 8 in the second and fourth column remain free, giving rise to the two solutions shown.

moments