| **Happened on this day** | **1617:** a one-way street was established for the first time. It happened in London.<br>**1924:** the closest approach of Mars to Earth since the 10th century<br>**1966:** the first photograph of the Earth from Moon was taken |
|---|---|

## Have the mascots helped?
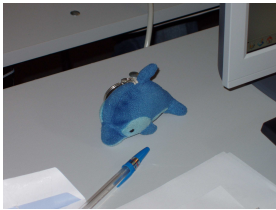


At 1:30p.m. yesterday it was all over. Now you just need some patience until the winners are announced at the closing ceremony.

As for now let's not worry about Wednesday yet. Yesterday morning, before the contest, you seemed to be less talkative than before the first session. Most were just waiting nervously. Yes, we realize that the last half an hour before entering the competition room is not pleasant at all. To our question 'How many points do you expect to score today' the most simple, yet most sensible answer was the one that the Hungarians gave: 'Between 0 and 300'. There was a contestant from China who expected at least two very difficult problems.
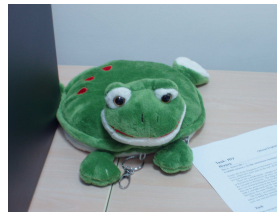


Has it really turned out so tough? Definitely not everything, and not for everybody. It would be difficult to describe the average of your impressions, since we have heard a full spectrum of answers. Sometimes



it was the case even among team-mates: we have heard all three problems' names as we asked the participants from Kyrgyzstan to choose the hardest one. From what you said it seems that the problems were of similar difficulty.

Filip Wolski and Jakub Łącki from Poland agree with that and add: 'All the problems were easy, and it took us much less than 5 hours to code the solutions. We spent rest of the time debugging. I hope we found all the stupid errors, and that we will score perfectly'.



Fortunately the editors do not have to solve tasks. We could admire your small mascots instead. The photos on this page feature a small selection of what we found on your desks.

## SECOND EXCURSION

| CONTESTANTS | |
|---|---|
| 7.00 - 8.00 | breakfast |
| 8.00 - 14.00 | Dunajec rafting |
| 14.00 - 15.00 | lunch |
| 15.15 - | a visit of choice, food & recreation at the campus |
| **LEADERS** | |
| 7.00 - 8.00 | breakfast |
| 7.45 - 18.00 | excursion to Wieliczka Salt Mine and Cracow |
| 19.00 - 21.00 | dinner in Niepolomice |
| **GUESTS** | |
| 7.00 - 8.00 | breakfast |
| 7.45 - 18.00 | excursion to Wieliczka Salt Mine and Cracow |
| 19.00 - 21.00 | dinner in Niepolomice |

## WEATHER FORECAST

### *Chilly and rainy*

| **morning** |  | **17°C / 63°F** |
|---|---|---|
| **afternoon** |  | **19°C / 66°F** |
| **evening** |  | **17°C / 63°F** |

**Contestants!** Due to the rain forecasts the plans for the afternoon have changed. You may now choose from a reggae band concert, a movie (these two options in the building of the cinema) and the visit to the ethnographic park (only basic sightseeing). Food and recreation are moved to the campus for late afternoon.

**Quotation of the day:** 'The question of whether a computer can think is no more interesting than the question of whether a submarine can swim.'— Edsgar W. Dijkstra

Another excursion day has come and once again our information comes along with the contestants' trip. Today you are up to some nature and some history.

# Pieniny, Dunajec Gorge

Your today's excursion is headed towards Pieniny — a mountain range 50 km southwest. These are extraordinary mountains — neither too high nor spacy, yet offering the most breathtaking views, hosting worldwide unique species of plants and animals. They are indeed beautiful.

Paths usually take strollers to The Three Crowns (982 m asl), the highest point, whose name is meaningful since the very top is split into three separate peaks, and Sokolica (see 'Polish your Polish' for a hint on how to understand that). The last one is famous for a pine whose trunk grows almost horizontally (!) out of the rock. You should easily recognize it featured on numerous postcards from that area.


*A view of Dunajec from Sokolica*

Let us now turn our attention to the main attraction for today — rafting. The river Dunajec, passing through the mountains, has had millions of years of time to carve a beautiful gorge. From the entry point of the raft, in Kąty, the river flows 18 km along the Slovak-Polish border to the town of Szczawnica (winding heavily, since the straight-line distance between these two places is only 6 km), between the steep, rocky sides of the canyon. The rafts, combined traditionally of a few wooden canoes, are operated by local raftsmen who navigate with long sticks, making their way among the quirks of the current.

No less than 200,000 visitors take the chance to enjoy the marvels of nature from the water level point of view: high cliffs, birds and fish, flowing water. Enjoy sharing that experience!

## Who is who



**Tom Verhoeff**
The Netherlands
Chairman of the International
Scientific Committee



**Eljakim Schrijvers**
The leader of The Netherlands

# The Sącz Ethnographic Park

The heritage park is situated in the outskirts of Nowy Sącz, about 4km from the center. This open-air museum presents the historic rural architecture, customs and culture of the Sądecka Valley region. About 60 original buildings of folk architecture — which include both poor village cottages and estates of rich, as well as agricultural buildings and craftsmen' workshops — have been moved here from the neighboring villages. The surrounding has a traditional appearance as well. Next to the settlements there are flower beds, vegetable and herb gardens, hives, wells, there are also fields and orchards. The interiors of the buildings contain furniture, tools and equipment used in various crafts.
We encourage you to take this trip even despite the forecasted rains.


*In the ethnographic park*

## Tomorrow

Wednesday morning we have some free time. There are two propositions open to everybody:

a) **mountain excursion** for experienced tourists. No rock climbing, but a heavy walk that will require good, comfortable shoes. Bus will leave at 7:30 from the campus.

b) **scientific meeting** with two Polish winners of various programming competitions. There will be two lectures, as outlined below.

**Andrzej Gąsienica-Samek, Comarch**

During my studies I have often asked the question on the superiority of one programming language over others. I have learned a lot of simple answers, each answer backed up by a number of people and each contradictory to the others. In my speech I am going to present some of the answers, focusing on their sources and conditions. Even though the entire speech will not be orthodox, as a conclusion I will formulate and support the thesis that C++ is the best programming language for IOI and explain what it means to Pascal or C contestants. Stop by, if you are interested in taking an outside-the-box look at programming languages.

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Andrzej Gąsienica-Samek was a member of the Warsaw University team which won World Championship ACM ICPC in 2003. He won also 3 gold IOI medals. Since 2003 he has been the manager of the R&D Department of Comarch, creating reporting tool Ocean GenRap, which realizes the idea of Business Intelligence for everyone.

**Wojciech Jaśkowski, CS Dept., Poznań Univ. of Technology**

Strictly algorithmic tournaments have certainly the longest tradition and are the most famous computer science competitions in the world. However, IT industry demands broader knowledge and higher technical skills from engineers and students. In result, many new international computer science competitions have appeared in recent years. It would be much wiser to choose those which match best one's interests and skills. That is why I would like to outline three of them briefly:
- Computer Society International Design Competition (CSIDC) (Washington, USA)
- Challenge24 (Budapest, Hungary)
- Imagine Cup (Yokohama, Japan)

I am going to talk about specificity of each of the competitions mentioned above, as well as my experience as a participant. I am also going to present a few interesting problems I have come across during these competitions and their possible solutions. Finally, I would like to show some interesting techniques I have used while coding real time artificial intelligence algorithm for Imagine Cup Visual Gaming competition.

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Wojciech Jaśkowski is doing his master thesis in Intelligent Decision Support Systems. He has been the winner of all the three above mentioned contests.

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# Our Babel Tower

Yes, we really have one. It is located along the corridor in building B.

# ENTERTAINMENT
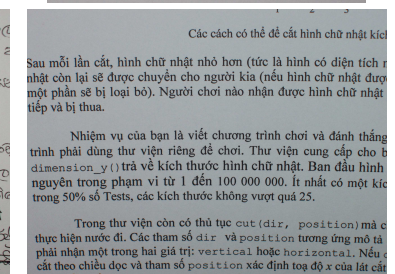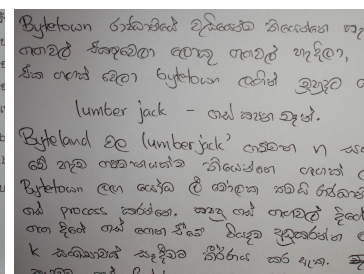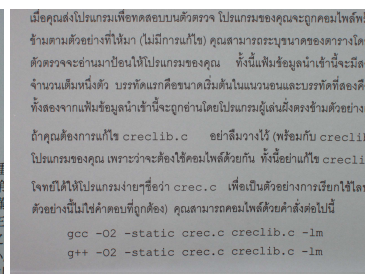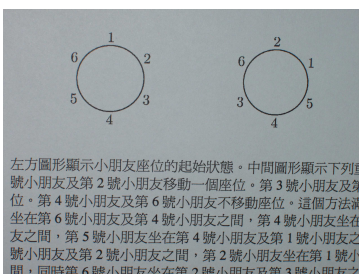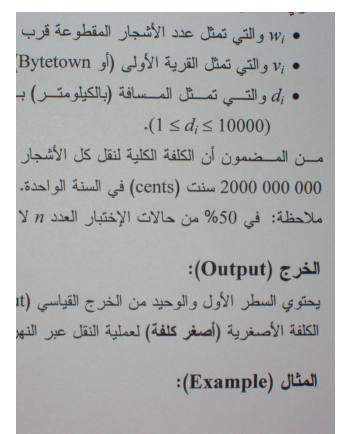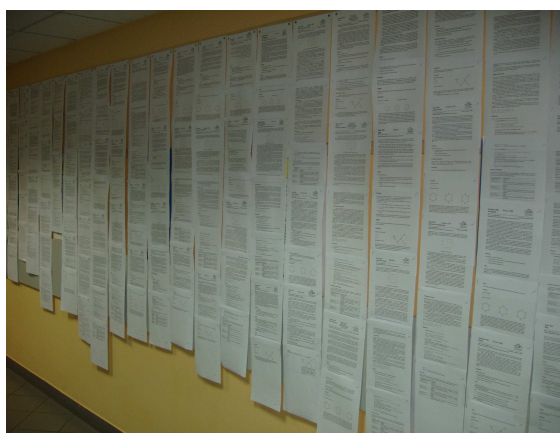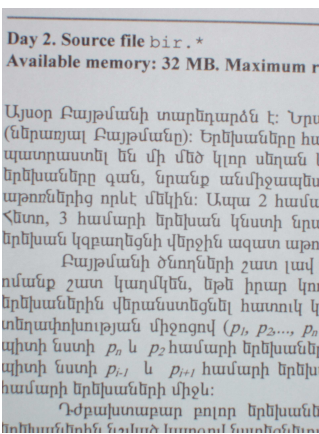
## Joke time

- What is the difference between an experienced and an unexperienced computer scientist?
- An unexperienced one thinks that 1 kB = 1000 B, an experienced one is sure that 1 km = 1024 m.

## Logic puzzle: Lightbulbs

**This one is due to the team from Portugal**

There are two rooms. In the first one there are three switches, in the second there are three lightbulbs, each connected to one of those switches. Initially the lightbulbs are off. Your job is to find out which switch changes the state of which lightbulb. You can only enter each of the rooms once. Both the switches and the lightbulbs are easily accessible.
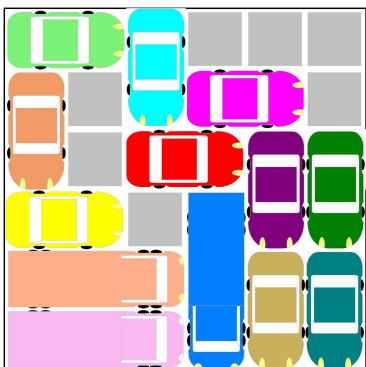
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## Rush hour - the challenge

Here are the four best submissions to the rush hour challenge. Below you can find the boards along with the number of moves they require (or at least their authors claim so). If you can solve any of these with fewer moves let us know until Wednesday lunch.



**79**



**50**



**43**



**40**

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**Happy birthday to:** *Emre Varol* from *Turkey* on his 16th birthday and *Mr Ivo Separovic*, the leader of *Croatia*

## Personality test
**Are you good with computers?**

**13.** How many seconds since January 1st 1970 passed last midnight?
a) 1 124 668 800
b) 1 124 755 200
c) 1 124 841 600

**14.** What can you code in less than a minute?
a) an AVL tree
b) Dijkstra's algorithm
c) primality checking in polynomial time

**15.** At night you are:
a) turned off
b) logged off
c) in stand-by mode

**16.** How fast do you answer an incoming e-mail?
a) immediately after I've read it
b) before I even receive it
c) at 100 Mb/s

**17.** What is your dog's name?
a) Legogo
b) Ohayo
c) Tamiloh

**18.** How many meals do you have a day?
a) 2
b) 4
c) 8

**19.** Your favourite animal is:
a) a mouse
b) a penguin
c) a turtle