# 20<sup>TH</sup> INTERNATIONAL OLYMPIAD IN INFORMATICS



# NEWSLETTER

Issue No. 3 Tuesday, August 19, 2008



#### Todays' Schedule

#### Contestants

07:00 - 09:00 Breakfast

09:00 - 13:00 Pyramids

13:00 - 14:00 Lunch

14:00 - 18:00 Activities

18:00 - 20:00 Night Show

20:00 - 21:00 Dinner

#### Leaders

07:00 - 08:00 Breakfast

08:00 - 09:00 GA Meeting

09:00 - 18:00 As Contestant Schedule

18:00 - 21:00

GA Meeting (Tasks)

21:00 - 22:00 Dinner

22:00 - 03:00 Translation

#### Guests

09:00 - 14:00 As Contestant Schedule

14:00 - 20:00 Egyptian Museum

20:00 - 21:00 Dinner

# Day one highlights

"I expected the exam to be difficult, but that is normal. The third question was so difficult. But I liked the 2nd one. I got 60 Points out of 300. I hope the 2nd test would mark my team's lucky day," said Nicolas Poniemam, Argentina.



"I thought the exam would be harder than the previous time. Yet to my surprise, it was easier than the two times I participated in Mexico and Croatia. I hope the second one will be at the same level," said Pavels Cupikovs, Latvia.



"It was too difficult, but thats' what we are here for! I enjoyed answering the 3rd question as it was a real challenge," said Jeffrey Hon, Hong Kong.



"Hooo ohhhh hooo!! The test was very hard. Only 20% was easy. I hope it will be easier the next time even for a change! Anyways, it was not bad," said Ji hoon ryoo, Korea.



"The test room was very cold. May be I felt that because the exam was terrible. I don't know why they give us only one easy question! I hope next time I will to do better," said Irvan Jahja, Indonesia.



"Well, it was fun! I liked the tasks. They were nice, though difficult. My team hopes for a high score in the contestant. That will be great, especially in the presence of all these brilliant people," said Rasumus Jorgersem, Denmark.



# Helping brilliant minds really matters

It was almost 2 pm when two men, an old man and younger one, were sitting on the ground, waiting for somebody to come out and say something about the IOI first day test. The old man seemed worried, but there was a glint in his eyes that is likely to attract others. He is Mario Cruz, the leader of the Colombian team. Cruz is an engineer and a professor at Antonio Naviho University in Colombia. "For me being the contestants' delegation leader is another mission," Cruz said. The main goal, he added, is to help brilliant people grow. "That's what I really care about."



#### **IOI** Conference

The IOI Conference, an event dedicated to leaders, kicked off Sunday for the second time after it had succeeded before in IOI 2007. Dr. Ekram Fathy, Chairman of IOI 2008, inaugurated the event.

"Last year we got very good feedback and the participants wanted to repeat the experience," noted IOI Conference Chair and IC Member Valentina Dagiene.

On the conference's first day Sunday, seven presentations were given, while nine more will be presented on the conference's second day Wednesday. Presenters are from Australia, Bulgaria, Canada, Germany, Estonia, France, Japan, Kyrgyzstan, Netherlands, Poland, Portugal, Romania, South Africa, Spain and the US. Presentations tackle topics like: Competitive Learning in Informatics: the UVa Online Judge Experience of Spain: a 10-year experience, Teaching Algorithmics for Informatics Olympiads: the French Method, Spain and Tasks and Training the Younger Beginners for Informatics Competitions, Bulgaria.

The IOI conference gives leaders and attendees the opportunity to make recommendations and learn from each other's experiences. Presenters use the conference time to discuss issues including topics standardization, developing further the grading system and other subjects related to the training of contestants. "This year's conference mainly focuses on tasks and training," Dagiene concluded.





### Ibn Al-Haytham

Abu Ali Al-Hasan ibn Al-Hasan Ibn Al-Haytham was an Arab or Persian Muslim polymath who made significant contributions to the principles of optics, as well as to anatomy, astronomy, engineering, mathematics, medicine, ophthalmology, philosophy, physics, psychology, visual perception, and to science in general with his introduction of the scientific method. He is sometimes called Al-Basri, after his birthplace in the city of Basra, Iraq. He was also nicknamed Ptolemaeus Secundus in Europe.

Though born in Iraq around the year 965, he spent most of his life in Cairo, Egypt, dying there at the age of 76. In his over-confidence about the practical application of his mathematical knowledge, he assumed that he could regulate the floods caused by the overflow of the Nile.[16] Ordered by the sixth Fatimid caliph, al-Hakim, to carry out this operation, he quickly perceived the inanity of what he was attempting to do, and retired in disgrace. Fearing for his life, he feigned madness and was placed under house arrest, during and after which he devoted himself to his scientific work until his death.

Ibn al-Haytham is regarded as the "father of modern optics" for his influential Book of Optics (written while he was under house arrest), which correctly explained and proved the modern intromission theory of vision, and for his experiments on optics, including experiments on lenses, mirrors, refraction, reflection, and the dispersion of light into its constituent colours. He studied binocular vision and the moon illusion, described the finite speed and rectilinear propagation of light, and argued that rays of light are streams of corpuscular energy particles travelling in straight lines. Due to his formulation of a modern





quantitative, empirical and experimental approach to physics and science, he is considered the pioneer of the modern scientific method and the originator of experimental science and experimental physics, and some have described him as the "first scientist" for these reasons.

# The Amulets



We hope

it works











Wake up man .. the contest is over .. Lets go to lunch

#### True or False

You should complete these questions in 30 seconds or less!

- 1. The word, "mineral," can be spelled using only the letters found in the word, "parliament."
- 2. This sequence of four words, "triangle, glove, clock, bicycle," corresponds to this sequence of numbers "3, 5, 12, 2."
- 3. 27 minutes before 7 o'clock is 33 minutes past 5 o'clock.
- 4. The word, "slackers," is spelled by using the first letters of the words in the following sentence: "Silent large anteaters calmly kiss each roasted snack."
- 5. If written backwards, the number, "one thousand, one hundred twenty-five," would be written "five thousand, two hundred eleven."
- 6. Gary has only forty-eight dollars, but he can buy a bicycle that costs one hundred twenty dollars, (disregarding tax) if he borrows fifty-seven dollars from Jane and fifteen dollars from Jill.
- 7. A round wall clock that has been rotated until it is hanging upside down will have a minute hand that points to your right when it is two forty-five.
- 8. If the word, "quane," is understood to mean the same as the word, "den," then the following sentence is grammatically correct: "Looking out from my quane, I could see a wolf enter quane."
- 9. If Richard looks into a mirror and touches his left ear with his right hand, Richard's image seems to touch its right ear with its left hand.
- 10. If you leave the letters in the same order, but rearrange the spaces in the phrase, "Them eats on," it can be read as, "Theme at son."
- 11. The words, "auctioned, education, and cautioned," all use the exact same letters.
- 12. John weighs 85 pounds. Jeff weighs 105 pounds. Jake weighs 115 pounds. Two of them standing together on the same scale could weigh 200 pounds.
- 13. The seventh vowel appearing in this sentence is the letter "a."
- Nine chickens, two dogs, and three cats have a total of forty legs.
- 15. Sixteen hours are to one day as twenty days are to June's length.
- 16. In the English alphabet, there are exactly four letters between the letter "M" and the letter "G."
- 17. If the word, "TAN," is written under the word, "SLY," and the word, "TOT," is written under "TAN," then the word, "SAT," is formed diagonally.
- 18. By removing seven letters from the word, "motherhood," the word, "home," can be formed.
- 19. If a thumb is a finger, then three gloves and three shoes normally hold thirty-five fingers and toes.
- 20. The words, "every, how, hand, ever," can form common compound words using, respectively, "one, ever, finger, more."

- 21. If Monday is the first day of the month, the very next Saturday is the fifth day of the month.
- 22. Three of the following numbers add up to the number 31: 17, 3, 2, 19, 5.
- 23. Fred will be four blocks from his starting place if he travels two blocks north, then three blocks east, and then two blocks south.
- 24. The following words are the opposites of words that begin with the letter R: unreal, street, grasp, unwind, wrong.
- 25. The following, disregarding punctuation, is spelled the same forwards as it is backwards: "Drat Saddam, a mad dastard!"

#### 

Pyramids	Ahramat	أهرامات		
River Nile	Nahr el Neel	نهر النيل		
Museum	Mathaf	متحف		
I am a guest	Ana deef	نا ضيف		

8				5		6		1
					6	3	5	
		2						7
5	9				7			2
		1		9		7		
								3
	6		1					
9			2				8	5
2	8		9	7	4			

#### Sudoku

Fill in the blanks with number from 1 to 9, but the number in a raw or column cannot repeat and the numbers in each 3x3 blocks cannot repeated.

# Did you know that ...

It is impossible to lick your elbow.

A crocodile can't stick its tongue out.

A shrimp's heart is in their head.

When you sneeze, your heart stops for a millisecond.

Rats multiply so quickly that in 18 months, two rats could have over a million descendants.

Wearing headphones for just an hour will increase the bacteria in your ear by 700 times.

The electric chair was invented by a dentist.

The cigarette lighter was invented before the match.

160 cars can drive side by side on the Monumental Axis in Brazil, the world's widest road.