Welcome messages

Dmitry Medvedev,
Prime Minister of the
Russian Federation

Dear friends!

I am glad to welcome you to the opening of the International Olympiad in Informatics.

Modern information technologies have become an invaluable part of our lives. Developing them further depends on you – young programmers who are already tackling some of the most complicated problems and achieving results. And whatever the result at the Olympiad, you are all already winners, having overtaken some very stiff competition in the knock-out rounds. For that I offer my sincerest congratulations.

This prestigious international competition of young intellectuals is taking place in Russia for the first time. It is a great honour to welcome the finest students on the planet to Kazan. Some excellent conditions have been put in place for you to perform successfully and demonstrate your knowledge of computer science, as well as get to know your peers from dozens of countries around the world.

I am confident that you will enjoy your time in Tatarstan, make some good friends and, of course, learn much about Russia – a country of great scientific discoveries and achievements; a country which these days is making innovative strides in cutting-edge technologies in all fields.

I wish you all good luck, success in your studies, and all the best.

I look forward to your next visit and a warm welcome in Russia!

Rustam Minnikhanov,
President of the
Republic of Tatarstan
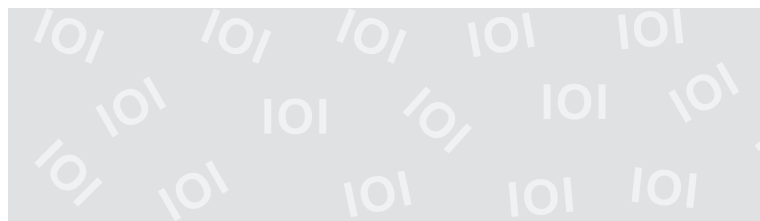
Dear friends!

The Republic of Tatarstan is entitled to be proud since it is our capital hosting the 28th International Olympiad for Informatics.

Intellectual duels that lie ahead of you will define the smartest one in the IT-sphere. All of you deserve the title – each of you has already become a champion in your own country.

It is gratifying to emphasize that the contest is staged on the premises of one of the co-organizers of the Olympiad – Kazan Federal University where Information Technologies are among the top priorities.

I would like to wholeheartedly wish every participant of the 28th International Olympiad in Informatics prove mettle, bring your talents to light and find new friends!

Dmitrii Livanov,
Minister of Education and
Science of the Russian
Federation

Dear friends!

The upcoming Olympiad is a very special one for us. For the first time in its 28-year history, this prestigious event will take place in Russia. It is especially encouraging that the right to host to competition was awarded to Kazan – one of the largest scientific and cultural centres in the Russian Federation.

I would like to draw attention to the fact that the International Olympiad in Informatics will take place at Kazan Federal University – an institution which takes pride in combining a rich academic tradition with a focus on cutting-edge approaches to teaching, among which IT is playing an increasingly significant role.

I am sure that the young programmers taking part will make a deep impression on representatives both from educational institutions and from companies specialising in this area. Talented students who today are learning the power of algorithmic thinking may tomorrow attain new heights in programming.

I hope that fruitful endeavour, honest competition and bold decisions will make August a real success. To all contestants – you have a fascinating challenge ahead of you; one which will give each of you the chance to make your own mark on the field of information technology!

Nikolai Nikiforov,
Minister of Telecom and
Mass Communications of
the Russian Federation

My dear friends!

I would like to take this opportunity to congratulate you on your selection to participate in the XXVIII International Olympiad in Informatics.

Today it is almost impossible to imagine our lives without information technology. It brings order to vast information streams on global, regional and local levels. It plays a crucial role in spreading computer literacy and increasing the importance of education, and touches on all aspects of social, political and cultural life, at home, work or at play.

For these reasons, the Russian Federation is placing a huge emphasis on IT in education, with a great interest in contemporary technology and methodology.

The XXVIII International Olympiad in Informatics will be contested by the best of the best: those who have triumphed in the many elimination rounds to make it here. It will be a real contest. Let this battle of wits be an important event in each of your lives, and your abilities, skills and strength of will carry you across the line.

I wish you the very best of luck, and every success in your endeavours!

IOI 2016. We're off!

Mr. Manev – how have you found the preparations for IOI 2016?
Since 2012 Russia has done much to prepare for hosting a programming competition of such a scale. We were convinced that this event would be carefully looked after by the Russian government. The International Olympiad in Informatics is taking place at the Kazan University campus, and the warm welcome given by our hosts was a joy to behold.

What tasks await contestants this year?
These days the difficulty level for IOI tasks is unusually high – not just average students but even good students struggle to solve them. Which tasks will appear this year is known only to the members of the International Scientific Committee, which includes both some of our former Olympiad participants as well as members of the IOI national scientific committee from each year.

Mr. Manev, what words do you have for the contestants?
We always hope for good questions and an interesting competition at the Olympiad. And to the contestants I impart the following:
Firstly, don't worry. The many languages, the other countries and the new competition hall can all be overwhelming, but just try to keep calm and focus your attention on the task.
Secondly, when you first see the questions, don't get hung up on the most difficult.
You could spend a lot of time on it and not earn a single point. Far better to start with one where you're guaranteed to get 10-20 points. Good luck! And believe in your abilities!

Krassimir Manev, President of the IOI and Professor at the Department of Informatics at the New Bulgarian University

Russia is holding the 28th International Olympiad in Informatics. The IOI already has a rich history.
I have been present at every Olympiad since the first one in 1989 and can say that with IOI 2016 we have used all this experience to prepare to the highest level.
Olympiad participants have been provided with the most modern of campuses and new equipment, and a large body of IT specialists from many leading universities in Russia have come to be present.
I would like to bring attention to the fact that the Olympiad in Russia will feature young, talented programmers from every continent on Earth. Participants at IOI 2016 have the unique opportunity make new, like-minded friends and expand the young Olympiad community, as the demands of the modern-day world of global informatics can only be met through the efforts of a new generation of computer specialists.
I hope that the hospitality shown at IOI 2016 stays in the hearts of every participant, and that participants are touched not just by the culture of Russia, but also its soul.
The first man in space Yuri Gagarin began his flight with the brief words "we're off!".
It is these words I would like to impart to you: participants at IOI 2016, and young citizens of the world.

Dr. Vladimir Kiryukhin, Chairman of IOI 2016

Contestants take a test drive

Today, 13 August, contestants took part in the practice round of the XXVIII International Olympiad in Informatics.

The competition hall echoed with the sound of frenetic typing and muffled voices, as contestants focused all their attention on their monitors.

To tell us about what goes on during the IOI practice rounds is **Pavel Mavrin,** member of the IOI International Scientific Committee (methodical support group for regional and final stages), multiple winner and medallist in various programming competitions and Computer Technology Chair at the Department of Information Technologies and Programming at ITMO University in St Petersburg.

The practice round is for the contestants to check how the computers work and whether they will be able to solve tasks on the software installed and submit them to the jury. It also familiarises them with the sorts of questions they will face in the competition rounds.

The tasks at the regional selection rounds are relatively simple. Today they were more interesting – they forced you to think and work the keyboard. The simplest one was essentially just to flip an information array from back to front. This was the task for testing the equipment; the other three were more complicated.

Some of the contestants also had their say on how they found the Olympiad practice round:

Mushegh Shahinyan (Armenia): This is my third Olympiad in Informatics, and compared to earlier ones, everything was been carried out at a high level. We really like the equipment. The tasks were really interesting – the people who think them up are always very original.

Markus Krabbe Larsen (Denmark): In my opinion the practice round was useful as it helped us to get used to the setting – the point wasn't the tasks themselves but to familiarise us with the equipment and surroundings.

Aleksejs Popovs, Aleksandrs Zajakins (Latvia): The questions were more or less the same format as we imagined during training. Today they explained how to correctly present your solutions and submit them. We could even help each other, but we won't be able to at the real Olympiad. The questions themselves weren't hard.

IOI 2016 begins!

The opening ceremony took place on 13 August, with one of the main highlights being the parade of flags of the participant countries.

To greet the guests and competition participants were Minister of Education and Science of the Russian Federation D.Livanov, Rector of KFU I.Gafurov, Prime Minister of the Republic of Tatarstan I.Khalikov and IOI President K.Manev. Formalities were concluded with the national anthems of Russia and Tatarstan, before the audience were treated to traditional songs and dances and a performance from the KFU theatrical team.

Tradition

Russian traditional dress

Women in Russia would traditionally wear a shirt and sarafan woven from cotton, wool or flax. Sarafans were often decorated with tassels, lacings, ribbons and embroidered patterns. A woman's headwear would denote her age, social and marriage status: girls and young women would wear a ribbon or a kind of crest known as a kokoshnik, while older women would have their hair completely covered.

Men would wear a kosovorotka – a shirt fastened at the hip – with banded trousers. Shirts were worn outside of the trousers and were fastened with a belt or long sash. For special occasions, shirts were decorated with embroidery.

kokoshnik   *kosovorotka*

balalaika

sarafan

Tatar national dress

Tatar national dress for men and women consists of a shirt (kulmek) and trousers (yshtan). Men would usually wear a jacket, gown or kaftan (zhilen) over their shirt, while women wore a dress with an apron or jacket (kamzol).

Tatar gowns did not fasten by themselves, so a belt was also required. It could be knitted with cotton or tied with wool. Tatar clothing has long been characterised by a baggy, V-shaped cut, brightly coloured and with a large amount of varied decorations.

The most popular headwear among the Tatar women was a cap known as a kalfak. A married woman's kalfak was more elaborate, and covered not just the head but also the neck, shoulders and sometimes even the back.

Tatar men wore a tyubeteika – a small hat worn on the crown, on top of which could also be worn a turban or fur, fabric or felt hats.

kalfak   *tyubeteika*

kulmek
kamzol   *zhilen*

Some useful phrases

ENGLISH	RUSSIAN	TATAR
WHAT'S YOUR NAME?	Как тебя зовут? [Kak tebya zovut?]	Синең исемең ничек? [Sineŋ isemeŋ nitʃek]
HOW OLD ARE YOU?	Сколько тебе лет? [Skol'ko tebe let?]	Сиңа ничә яшь? [Siŋa nitʃæ yæʃ]
WHERE ARE YOU FROM?	Откуда ты? [Otkuda ty?]	Син кайдан? [Sin kaydan]
WHAT CITY ARE YOU FROM? WHAT COUNTRY ARE YOU FROM?	Ты из какого города? Ты из какой страны? [Ty iz kakogo goroda? Ty iz kakoy strany?]	Син кайсы шәһәрдән? [Sin kajsı ʃæhærdæn]

ENGLISH	RUSSIAN	TATAR
FRIENDSHIP	Дружба [Druzhba]	Дуслык [duslık]
PEACE	Мир [Mir]	Дөнья [denja]
GOOD	Добро [Dobro]	Яхшылык [jahʃılık]
HAPPINESS	Счастье [Schast'ye]	Бәхет [bæhet]
SMILE	Улыбка [Ulybka]	Елмаю [elmaju]
SUCCESS	Успех [Uspekh]	Уңыш [uŋıʃ]
KNOWLEDGE	Знания [Znaniya]	Белем [belem]
TALENT	Талант [Talant]	Сәләт [sælæt]

Kazan University: our greatest discoveries

1821. Astronomer **Ivan Simonov** (1794-1855) participates in the discovery of Antarctica (on the Bellingshausen and Lazarev expedition). He was the first Russian astronomer to observe the night sky from the Southern Hemisphere.

1842. Chemist **Nikolai Zinin** (1812-1880) is the first to synthesise aniline. In the 1850s he developed the most effective method for synthesising nitroglycerin - the most powerful explosive of the time.

1844. Chemist **Karl Ernst Klaus** (1796-1864) discovers the chemical element ruthenium (the only naturally-occurring element to be discovered in Russia). He displayed its similarity to rhodium, palladium, iridium and platinum.

WEATHER FORECAST
14 August, Sunday

Day +32 C / 89.6 F   Night +23 C / 73.4 F