



Международная астрономическая олимпиада
The International Astronomy Olympiad

С 1996 г.

Since 1996.

язык	<i>English</i>
language	

Rules and Regulations for a participant of the Olympiad

There is an obligation of team leaders to translate these rules and regulations, and also the instructions for every Round, to native language of participants in advance and to teach student to follow these rules.

(Starting since 2004 this translation has to be done in written form as an obligatory part of application to the International Astronomy Olympiad.)

Originals of the instructions are written both in Russian and English since 2001.

General information for Theoretical and Practical rounds

General information and recommendations:

- The time available is **4 hours** for work at the round.
- **The work must be carried out independently.**
- **Don't write the conditions of problems** in rough copy or clean copy.
- **Languages.** All additional information for participants to be done in both official languages of the Olympiad: in Russian and in English. It is helpful to know basis of one of these languages for correct understanding the additional information.
- **Questions** to supervisors during of rounds. Pay the especially attention to what a question you wish ask. Take into consideration that your question will be repeated for all participants as well as answer. A question of the type “Whether some effect must be taken into account?” means, very often, that you understood the idea of task; or mentioned effect is must essential part of the task.
- **Clean and rough copies.** It is recommended to use the first part of copy-book as clean copy, and the second one – as draft.
- **Rough copy.** If you haven't time to rewrite solution (or a part of solution) in your clean copy, please make a note “see rough copy” **in Russian or English by accurate printed characters.** But the index number of the task must be indicated in clean copy, and also a reference to rough copy. **The rough copy will be not checked without such reference.** Considerations that you gave into account of rough copy are evaluated in such degree that they don't contradict to final solution in clean copy. In particular if solutions in clean copy and in rough copy are different, then clean copy is evaluated only.
- Pay attention **to understand the question** of the task. For example, if it is asked to find *radius* of a star then answer “*Diameter of the star is equal...*” is not completely right.
- Pay attention to use symbols as given in the task **and (for constants) in the table of constants.** For example, if it is written “Find distance **P** in perihelion” do not use L_P for this distance. Also do not use the same symbol for different value (do not use **P** also for power in the case above).
- **The final answer should be expressed in the most appropriate units (maybe in SI, maybe other).**
- **Part of the marks available for the solution will be deducted for a correct answer without units (km, kg, au, etc.).**
- **Part of the marks available for the solution may be deducted for answers with wrong numerical accuracy (wrong number of significant figures).**
- **The sheet with the conditions of the problems** you can take with yourself *after* finishing of a round only, but if you made some geometrical sketches on the drawings in the task, then it will be better to return the sheet with task together with your clean copy (in this case you can't write any data about yourself on the sheet with task as well).

Requirements:

- **Personal indication.** Before starting the work it is necessary to indicate the surname, name, patronymic, town, school, class and other individual data of participant at answer sheet. All there data are indicated on cover of the answer sheet only.

— You should write clean copy of solutions using only **blue or violet pen**. It is not allowed to write solutions **by pencil** or other colour pen. Pencil may be used to draw pictures and graphs only. Red pen or pencil are not allowed at all.

— Solution of every new problem you should start **in a new page** (even in the case of only one word in the previous solution). The **index numbers** of tasks **should be distinguished** clearly in rough copy as well as in final version.

— **Numerical values**. All numerical values must be written using standard symbols but not symbols of National alphabet.

What is forbidden:

— To write anything (beginning solution) on the first white page of clean copy (having the stamp of the coordinating council). This page is intended for the work of a jury.

— To talk with other participants of Olympiad and ask questions.

— To use reference books, textbooks, any other books, tables, catalogue etc., if such items were not given to participant together with task.

— To bring to the round portable computers, mobile phones, navigation devices and other electronic means, and also calculators, which ones on exterior resemble mobile phones **or communication devices**.

— To take calculations as well as write rough solutions and anything at all on own sheets that differ from given by organizers.

— To remove any page from the answer sheet copy-book.

— To use red colour pen or pencil anywhere in the solution.

— To write anything on the envelopes done with texts.

— To make changes in the work after time for solution is up.

— To ask questions connected with used formulae, constant values, and also questions of type: “Is it necessary to take into consideration certain effect?”

— To make any superfluous noise (for example, from unwrap chocolate etc.)

— To finish the work and leave classroom earlier than 2 hours after beginning of a round expire.

— To come out classroom temporarily more than one participant simultaneously.

What is permitted:

— To write solutions of tasks in clean copy in arbitrary sequence.

— To use sliding rule, computational tables, engineering calculator with arithmetical, algebraical and trigonometrical functions (except calculators, which ones on exterior resemble mobile phones **or communication devices**).

— To use penholder, pencil, ruler, protractor, compasses, squared paper, tracing-paper (if it is necessary).

What is recommended:

— To make all intermediate calculations, transformation symbol aspect, and substitute by number values in end only – it will diminish a probability of an error in final answer.

— To avoid use facts (numerical values, formulae, etc.) known to you, which may be not evident for jury members. Better to receive them from more evident values and formulae.

— To use in solutions only the numerals as sub-indexes: it will be better for jury to understanding the differences in the designations.

— To **separate formulae** and explanation texts with intervals (about **1 cm**).

Additional instructions for Theoretical round (only)

Requirements:

— **Languages of the text of solutions.** It is permitted to write text of solutions in one of three languages: native language or one of two official languages. Nevertheless numerical values must be written using standard symbols but not symbols of National alphabet. It is recommended to diminish text in your solutions and pay more attention for expressing your solution in drawing pictures, plotting graph, writing formulae and numerical values.

— **Pages for the text of solutions.** In clean copy you should write solutions **only on even (left) pages**. The odd (right) pages will be used by your team leader to translate solutions into English and make emphasizing of your thoughts in solutions.

EVEN PAGE	ODD PAGE
<p><i>Текст решения.</i> <i>Text of solution.</i> <i>Текст решения.</i> <i>Text of solution.</i> <i>Текст решения.</i> <i>Text of solution.</i></p>	<div style="text-align: center; font-size: 2em;">X</div>
ЧЁТНАЯ СТРАНИЦА	НЕЧЁТНАЯ СТРАНИЦА

Recommendations:

— If you have enough time, please try to **describe** clearly the physical or other **model** that you chose, and all **approximates, neglects**, etc. Don't omit description of thoughts that look as obvious. Take into consideration that written solution is evaluated only. Your thoughts that don't reflected in writing will not be evaluated even they are very right.

— When you give **solution of qualitative task**, you must give the ground for your solution. Brief answer such as "yes", "no", "don't changed" are not solution. Please think what quantitative criteria can be used for the ground of your thoughts.

— If you **introduce symbols** for the designation of some quantity, you must explain clearly this quantity. For example: "*Let us E will be total energy of the celestial body...*" This way will make easier a mutual understanding between you and jury member that examines your work.

Take into account:

— Maybe not all problems have correct questions. Some questions (maybe the main question of the problem, maybe one of the subquestions) may make no real sense. In this case you have to write in your answer (in English or Russian): **«impossible situation – ситуация невозможна»**. Of course, this answer has to be explained numerically or logically.

— **Data from the tables** (Planetary data, stars, constants, etc.) may be used for solving every problem.

— The answers «**Да-Yes**» or «**Нет-No**» have to be written in English or Russian.

Additional instructions for Practical round

Requirements:

— **Languages of the solutions.** (*For Practical and also for Observational rounds*). No text in any language is permitted to use in solutions. All the solution must be written using only drawing pictures, plotting graph, writing formulae, numerical values and standard international astronomy symbols (like \oplus , \ominus , α UMa, M31, 5^m). Numerical values must be written using standard symbols but not symbols of National alphabet. Jury of the Practical round will not take into account any text in any language in solution.

Additional instructions for Observational round – see separate file

We wish you success !



Organizing committee, jury.

IAO 2001 Crimea, IAO 2002 SAO, IAO 2003 Stockholm, IAO 2004 Crimea, IAO 2005 Beijing,
 APAO-2005 Irkutsk, IAO 2006 Mumbai, APAO 2006 Vladivostok, IAO 2007 Crimea, APAO 2007 Xiamen,
 IAO 2008 Trieste, APAO 2008 Bishkek, APAO 2009 Danyang, IAO 2009 Hangzhou, IAO 2010 Crimea,
 APAO 2010 Papua, IAO 2011 Alma-Ata, APAO 2011 Aktobe, IAO 2012 Gwangju, APAO 2012 Cox's Bazar,
 IAO 2013 Vilnius, APAO 2013 Tomohon, IAO 2014 Bishkek, APAO 2014 Irkutsk, IAO 2015 Kazan.