



IOAA

# MANUAL BOOK

## FOR PARTICIPANT

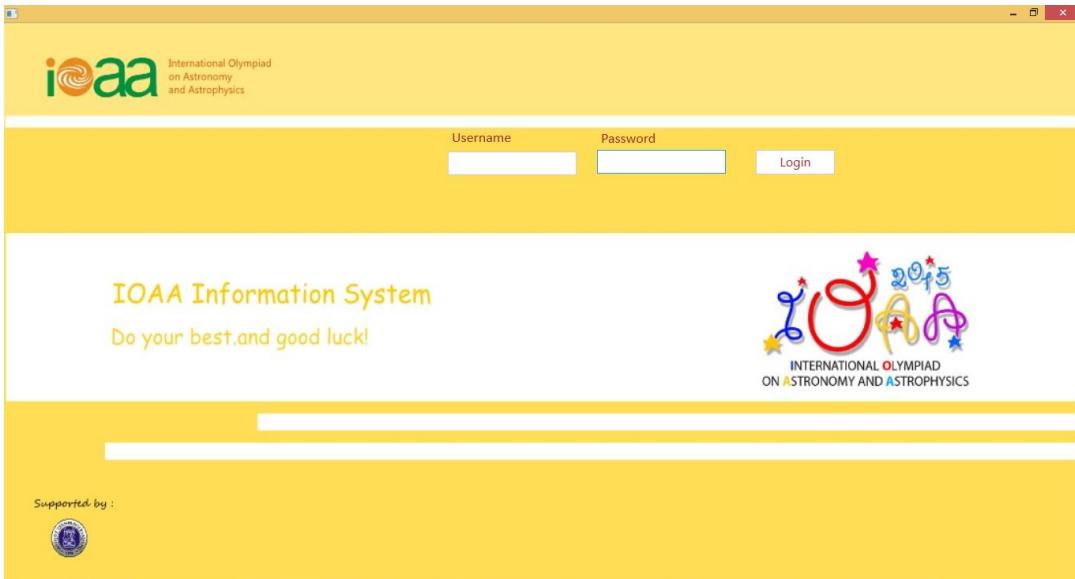


IT STAFF  
IOAA INFORMATION SYSTEM

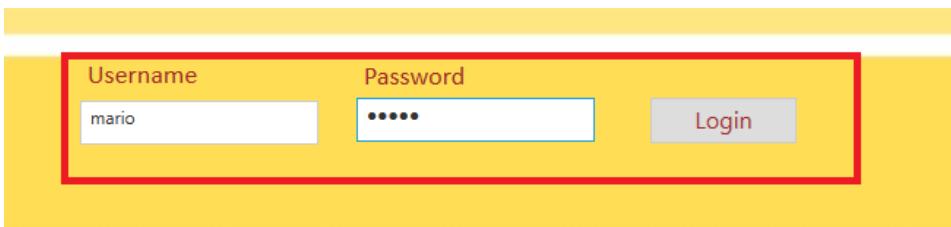
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## 1. LOGIN



Fill your username and password which have given the committee, then click Login button.



## 2. GENERAL RULE

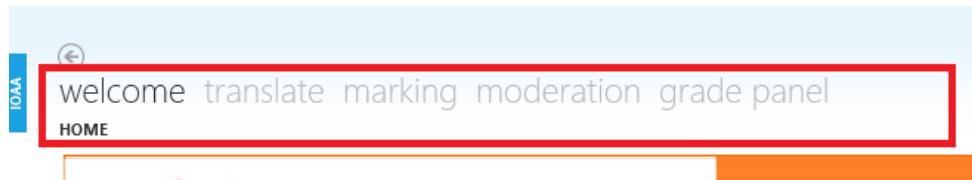
If the login successful, General Rule page will appear. This page contains the provisions made for the team leader like the picture below:

A screenshot of the "General Rules" page. The top navigation bar includes "HOME", "LOGOUT", and a user icon. The main content area features the IOAA 2015 logo and the title "General Rules". Below the title is a numbered list of rules: 1. The whole process of answering reserved through this software. 2. You may use the program on your computer that can make you in answering question. 3. You may not use any communication device (cell phone, pager, etc.) and other computational tools (calculators, abacus, etc) in addition to being available on this computer. 4. 240 minutes for essay. 5. You are encouraged to answer questions that are considered easy to advance. 6. You are given the opportunity to answer the question twice, but the second answer to the maximum value (revised) is 80% of the maximum value of each question. 7. There is no reduction in value if your answers are wrong (the minimum value is 0). 8. When time trials began to question will automatically be shown a test page, and automatically disappears after the exam is completed. 9. The answer to question essay submitted in the file Microsoft Office documents (Word, Excel). Save Your files first before sending in your computer with the format [user name\_ numbers matter\_first/revision], then save in a folder on your computer with the folder name is your full name. 10. Use list of Constants that are provided on menu besides the right if necessary. 11. If you have difficulty in using a computer, you are allowed to contact the committee. At the bottom is the "ioaa International Olympiad on Astronomy and Astrophysics" logo.

Please read them carefully.

### 3. MENUS

If you see to the top left corner, you will find some menus. See the picture below:



We will explain the function of each menus for you:

#### 3.1 List Constants

welcome list constants questions change password

This page contains the reference of constants.

Astronomical Constants	
Quantity	Value
astronomical unit (A.U.)	149,597,870,691 kilometers
light year (ly)	$9.460536207 \times 10^{12}$ km = 63,240 A.U.
parsec (pc)	$3.08567802 \times 10^{13}$ km = 206,265 A.U.
sidereal year	365.2564 days
tropical year	365.2422 days
Gregorian year	365.2425 days
Earth mass	$5.9736 \times 10^{24}$ kilograms
Sun mass	$1.9891 \times 10^{30}$ kg = 332,980 × Earth
mean Earth radius	6,371 kilometers
Sun radius	$6.96265 \times 10^5$ km = 109 × Earth
Sun luminosity	$3.827 \times 10^{26}$ watts

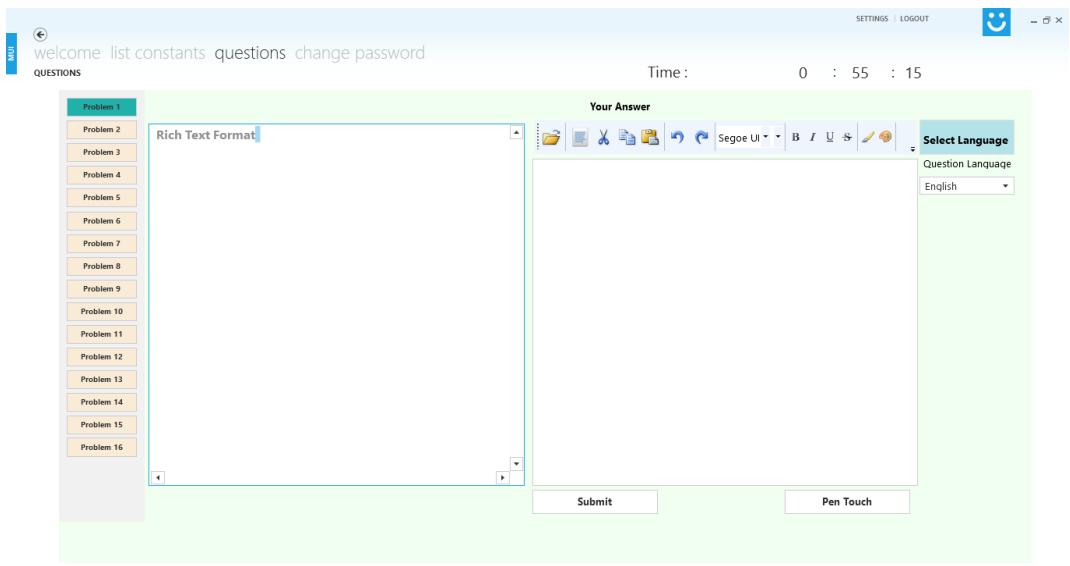
Physical Constants	
Quantity	Value
speed of light (c)	299,792,458 kilometers/second
gravitational constant (G)	$6.6726 \times 10^{-11}$ m <sup>3</sup> / (kg sec <sup>2</sup> )

#### 3.2 Questions

welcome list constants **questions** change password  
QUESTIONS

This page is provided for you to answer the questions.

Page to answer the questions, see the picture below:



### Questions list:

This screenshot shows the same digital assessment interface, but the focus is on the 'QUESTIONS' section. The list of problems from 'Problem 1' to 'Problem 16' is displayed. The first item, 'Problem 1', is highlighted with a teal background, while the others have a light orange background. A red rectangular box highlights the entire list of problems on the left side of the screen.

To open the question, just click in the list:

The screenshot shows a user interface for a competition. At the top, there's a navigation bar with links: 'welcome', 'list constants', 'questions', and 'change password'. Below this is a section titled 'QUESTIONS' with a list of 16 problems numbered 1 to 16. Problem 1 is highlighted with a green background and bold text. To the right of the list, the content of Problem 1 is displayed in a larger box. The text in the box reads: 'What would be the **average** temperature on the Earth's surface if we ignore the greenhouse effect but take into account its non-vanishing albedo? Assume that the Earth's orbit around the Sun is circular.'

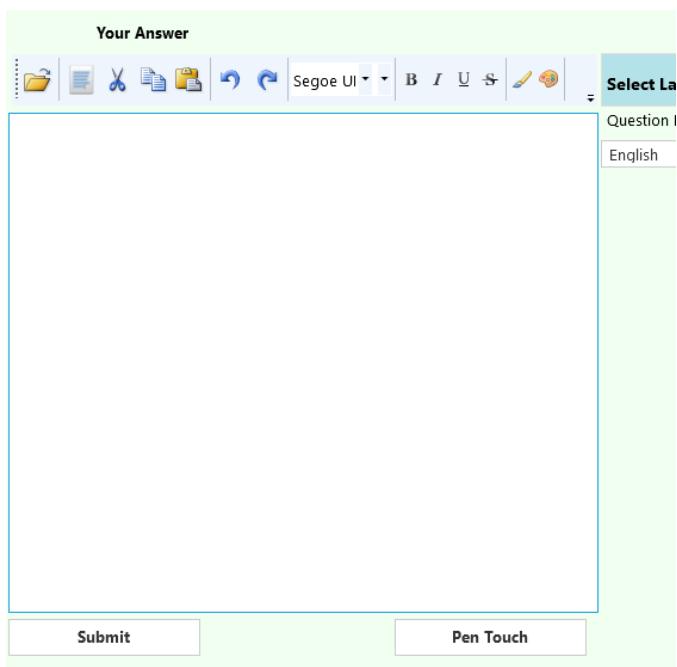
If you want to choose a language appropriate to the country of origin choose "SelectLanguage".  
See the picture below:

The screenshot shows a 'Select Language' dialog box. It has a title bar 'Select Language' and a subtitle 'Question Language'. Below that is a dropdown menu with a list of languages. The language 'English' is currently selected, indicated by a blue highlight. Other languages listed include Estonian, French, Georgian, German, Greek, Hindi, Hungarian, Indonesian, Kazakh, Korean, and Kyrgyz.

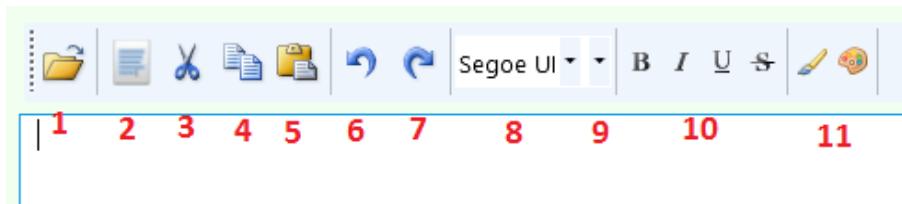
You can see the time of the Olympiad in the right corner, see the picture below:

The screenshot shows a timer at the bottom right of a web page. The timer displays '0 : 50 : 58'. Above the timer, there are links for 'SETTINGS' and 'LOGOUT'. To the right of the timer is a small smiley face icon.

In the next of question panel, there is answer panel. See the picture below:



There are several tools that will allow you to work on the problems:



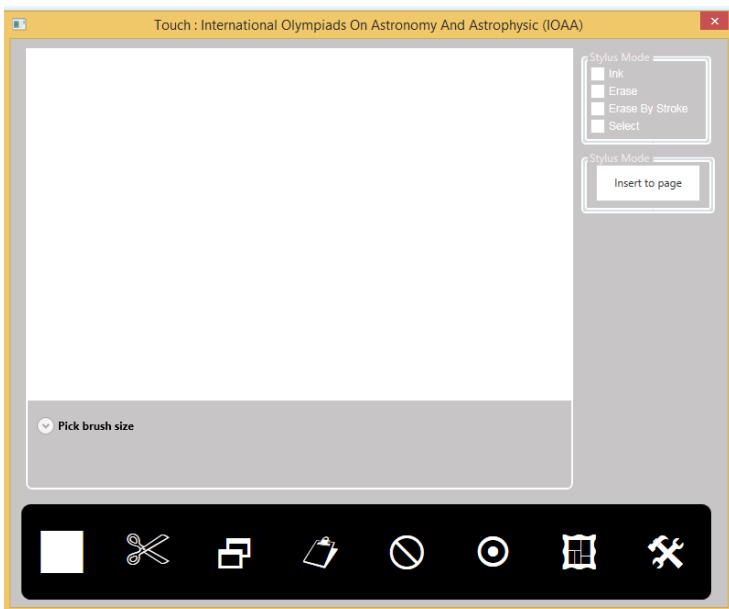
Information:

1. Insert picture.
2. Select all the text.
3. Cut the text that has been drag.
4. Copy the text that has been drag.
5. Paste.
6. Undo.
7. Redo.
8. Font option.
9. Size font option.
10. Style font option.
11. Option to respond with a pen or handwriting.

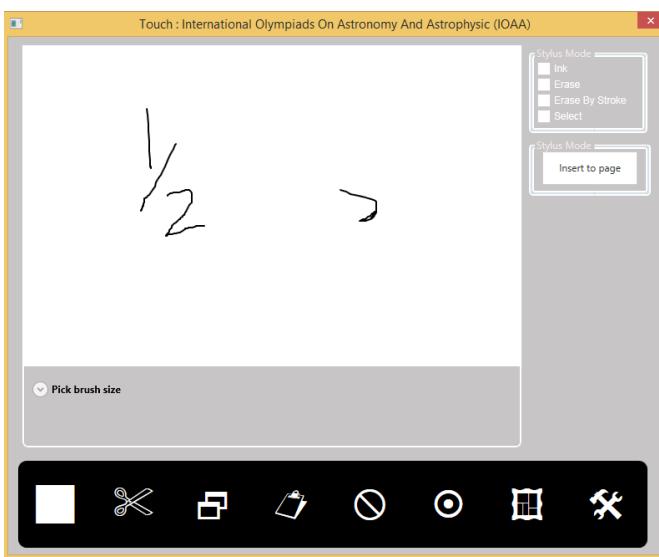
If you want to write a formula, you can use the Pen Touch to write your formula.



Pen Touch display:



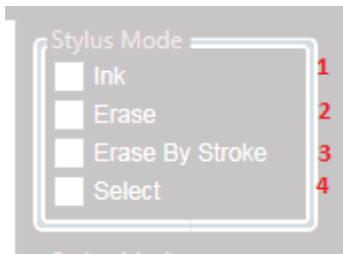
Use your mouse to drawing formula, like this picture below:



You can adjust the line from thin to thick, see the image below:

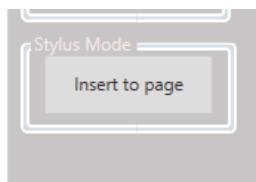


There are also has supported features:



1. Ink : Tool for Pen Touch.
2. Erase : To delete.
3. Erase By Stroke : To delete the stroke
4. Select : To select

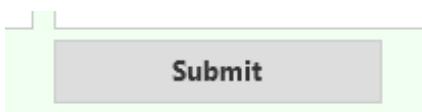
If you have done with your formula, click Insert button.



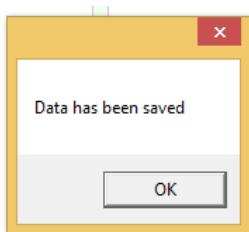
Now your image has been appeared in the answer panel, see the image below for the example:

A screenshot of a digital workspace interface. At the top, there are 'SETTINGS' and 'LOGOUT' links, a smiley face icon, and a search bar. Below this is a timer showing 'Time : 1 : 3 : 55'. The main area is titled 'Your Answer' and contains a drawing tool toolbar. A handwritten digit '2' is drawn on a white canvas with a dashed selection box around it. To the right of the canvas is a 'Select Language' dropdown set to 'English'. At the bottom of the panel are 'Submit' and 'Pen Touch' buttons.

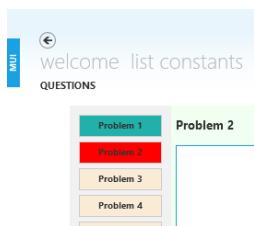
If you are already convinced with your answer, just click the Submit button.



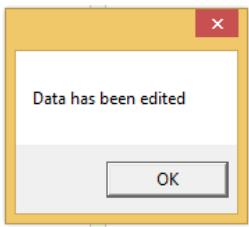
The information that your answer has been saved:



If you want to rewrite your question, do the same thing from the start and click Submit button once again.

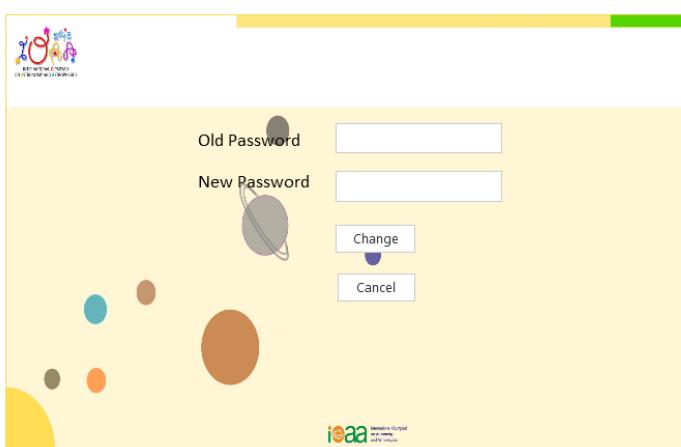


Look at the picture above, if you already input your first answer, the color of list will be blue. Then if you already input your second answer, the color of list will be red. You can only answer the question twice, then you can't edit your answer anymore. Here the message:



### 3.3 Change Password

If you want to change your password, you can click this menu. Input your old password, then input your new password in the blank space.



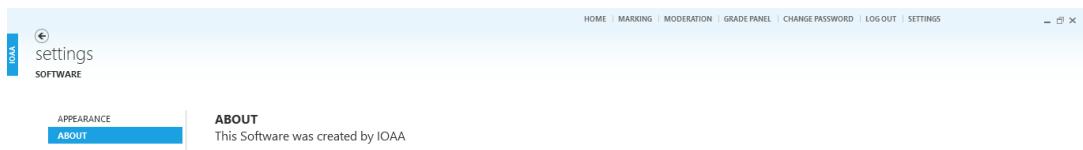
## 4. MENUS IN THE TOP RIGHT CORNER

### 4.1 Setting

You can change the background color:



About the application:



### 4.2 Logout

Before close the application, you better to log out first. Click "Yes" button if you sure to log out.

