

## 4<sup>th</sup> IYNT 2016

### ***Invent Yourself* problem statements for Science Fight 3**

As of July 17, 2016, 23:55

#### **Belarus-Pahonia**

1. Air traffic in different places of the Earth is variegated. Find the correlation between the popularity of air path and the price of flight. In case of success investigate phenomenon.
2. It is often argued that some of weather lore is true and has predictive value. Investigate rightness of the next sayings:
  1. If winter is cold and dry, then summer will be warm and dry.
  2. If in Annunciation (April,7) is overcast, rain or snow, then summer will be rainy and overcast.
  3. West wind carries rain.
3. Investigate what factors influence human's reaction time on different stimuli. Make the difference between reaction on visual, mechanical and sound stimuli. Determine how to cope with a problem of inaccuracies during measurements of human's reaction time.

#### **Croatia**

1. Influence of Earth's rotation on length of transatlantic flights will be investigated. Special attention will be drawn to airplane's path during the flight.
2. In Croatian tradition, long-term (annual) forecast is often connected with certain dates, and, for easier remembering, with celebration of certain Catholic saints, for example: "St. Kate - snow ahead". Accuracy and reliability of such sayings will be investigated.
3. Human reaction time on various visual and audio stimuli will be investigated. Stimulation and time measurement will be automated.

#### **Georgia-Georgians**

1. The research has been carried out about the distribution of airplanes dependence on elevation. The probability of airplane accidents have been calculated in case of air traffic and normal flight. Experimental data which were taken from internet are explained theoretically.
2. We have theoretically assumed on which parameters reaction time is depended on, like age, sex, different stimuli, etc. Experiments were conducted and compared to theoretical method. Some interesting phenomena were also investigated like the reaction time depends on alcohol.
3. Some people say that according to swallows' behaviours like where they are building their nests and how high they fly, one can predict weather forecast. This method is investigated both theoretically and experimentally in case of city and village. Also our long and short time predictions are compared to weather.

## **Iran Besat 1**

No original problem statements were submitted whatsoever.

## **Iran Besat 2**

No original problem statements were submitted whatsoever.

## **Iran Farhang**

No original problem statements were submitted whatsoever.

## **Iran Free Thought**

No original problem 1 and 2 statements were submitted whatsoever.

3. when you sit in front of the instrument you see 4 lamps and 4 switches in front of you. there are 4 lamps and 4 switches on the other side too. for example the controller turns the blue light on and when you see the blue light you should immediately press the blue switch and the blue lamps becomes on, on the other side and we will be able to measure the persons reaction time to light using a chronometer. by testing 30 people and making charts we found the factors that affect humans reaction time

## **Iran Khashayar**

No original problem statements were submitted whatsoever.

## **Iran Maple**

Text solutions for problems 1-3 submitted. No original problem statements were submitted whatsoever.

## **Iran Paramount Notion**

No original problem statements were submitted whatsoever.

## **Iran Mehr**

1. Web services provide a standard way of publishing data sources. Investigate the different factors have impact on the collected data.
2. Identify the facts Based on which the weather is forecasting.
3. identify the effect of routine life plan on reaction time.

## **Iran Gifted**

No original problem statements were submitted whatsoever.

## **Iran Armordad 18**

1. we plan a web servis that it can collect some data for controllers, this web service product some flight folders for planes during the flight, and it can forecasts these data for next a few second.

2. we considered some methods of weather forecasting and the solution ways for them,for example Hadcm2,Hadcm3 and so on.

3. Make a test to find the average time of human reaction time , and compare between men and women reaction time and a reaction time to auditory stimulus and visual stimulus.

### **Iran Black Intelligence 18**

No original problem 1 and 2 statements were submitted whatsoever.

3. What is the fastest human reaction timespeed of sounds , light

### **Iran Velayat 18**

Long abstracts for problems 2 and 3 submitted. No original problem 1 and 2 statements were submitted whatsoever.

### **Russia-Voronezh**

1. Flightradar24 is a web-service which aggregate and provide data on positions, altitudes, speeds, and other parameters of almost any commercial flight in the world. Using it, determine and investigate the density of air traffic at a certain flight level. Investigate and confirm that it follows the rules for the air traffic.

2. Basing on your own observations, check out to what degree a popular short-term weather lore prediction is valid. Do the same for a long-term prediction with the use of observation journals at weather forecast web sites.

3. Human reaction to various stimuli occurs with a delay. Measure the time of human reaction on visual stimuli by means of grasping reflex. Investgate its dependence on gender, training and other factors. Investgate human reaction on unexpected sounds as well.