



THIS SHEET IS USED BY CHAIRPERSON ONLY

Captains are asked if they hear the Chairperson clearly.

Chairperson reads the first task aloud. Everyone in the Group hears the task.

The answers are provided by Captains in direct messages to the Chairperson.

The time to solve each problem is **20 seconds, including the time of typing.**

After collecting the answers, Chairperson moves on to the second task etc.

Points for any problem can be either **0** (invalid, absent, incomplete, unintelligible or wrong answer) or **1** (correct answer).

All answers and number of points are public.

The winner is determined by the maximum number of correct answers.

In case of a tie, an extra Problem 6 is offered, and the Captain with the best answer gets an extra 1 point.

The screenshots of answers are submitted to the Scoring Commission for archiving.

All scores (including an extra point in a tie breaker) and the winner are recorded in Science Fight Protocol.

8th IYNT 2020: Captain's Contest for Science Fight 4

1. Here is a list of five chemical elements. Indicate the only one which is **not** a halogen.
Bromine (Br), Chlorine (Cl), Fluorine (F), Iodine (I), Phosphorus (P)
2. Here is a list of four stages in the life cycle of a mosquito. Indicate the only one stage in which the mosquito can fly.
Adult, Egg, Larva, Pupa
3. An important method to classify a bacterial organism uses staining with crystal violet dye and observing the resulting color of bacteria. Name the method.
4. Arrange these three planets in the order of **increasing** diameter.
Earth, Jupiter, Mercury
5. Arrange these three spectral colors in the order of **increasing** wavelength.
Green, Red, Violet

Do not ask the question below unless a tie breaker is announced

6. An acute dose of 5 grays (Gy) of ionizing radiation is lethal for a human. A bacterium named *Deinococcus radiodurans* is radiation-resistant. Estimate the total acute dose that this bacterium can withstand with almost no loss of viability.

Correct answers:

1. Phosphorus (P)
2. Adult
3. Gram's staining or Gram's method
4. Mercury→Earth→Jupiter
5. Violet→Green→Red
6. 5000 grays (Gy)