

Captains are invited to the stage.

Chairperson reads the tasks aloud and gives out this sheet to each Captain.

The time to solve all problems is **5 minutes**.

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 sheets with answers and names of Captains are then 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.

## 7th IYNT 2019: Captain's Contest for Science Fight 4

Team \_\_\_\_\_ Captain's name \_\_\_\_\_

Team Captain's name		Group
Problem	Answer	Points (0 or 1) filled by Chairperson
1. Below is given a list of five metals. Indicate the only one which is not an alkali metal.		
Cesium (Cs), Lithium (Li), Potassium (K), Radium (Ra), Sodium (Na)		
2. Arrange these mammals in the order of increasing body mass:		
African bush elephant ( <i>Loxodonta africana</i> ), Baluchistan pygmy jerboa ( <i>Salpingotulus michaelis</i> ), Red kangaroo ( <i>Macropus rufus</i> )		
3. Convert the binary number 11 to decimal form.		
4. Name the number of upper extremities ( <i>Membrum superius</i> ) in a healthy human.		
5. Karl Landsteiner (1868—1943) discovered that two apparently similar samples of a fluid would often clump together when mixed in test tubes. The outcome of this discovery has revolutionized the medicine in the XX century. Name the fluid that Landsteiner has studied.		

## Do not answer the question below unless a tie breaker is announced

6. An article published in <i>The Gentleman's Magazine</i> described a commercially successful instrument that could be used for arithmetic calculations. The article, in particular, read, "A multiplication of 8 figures by 8 others is made in 18 seconds; a division of 16 figures by 8 figures, in 24 seconds; and in one minute and a quarter one can extract the square root of 16 figures, and also prove the accuracy of the calculation." Estimate the year of the publication.	
calculation." Estimate the year of the publication.	