4B

Before leaving the room, please check that this Protocol is filled and signed. In case a Juror mistakenly holds up a Grade which differs from their Individual Protocol, announce this immediately to the Chairperson, make a clear correction in this Science Fight protocol, and ask the Juror to sign near the correction. No Juror can amend any Grade rectroactively (*IYNT Regs*, Ch. 1, IX, 1.)

Science Fight Protocol

Attendant's name Lika Zurabiani Chairperson's name Anton Khvalyuk SF 4 Group B

Date 08/07/2018 Time SF started 15:12 Number of Jurors 9 Name of the winner of Captain's Contest, if any Ilya Voronin (Voronezh) Time SF ended ~~19:27~~ 19:27

Grades cross-checked with Jurors' Protocols (Attendant's signature) _____ The Protocol is complete and accepted (Chairperson's signature) _____

Captain's Contest, if any	Team: New Zealand	Points: 1	Team: Georgia - National	Points: 2+0	Team: Russia Voronezh Kvantorium	Points: 2+1

	Stage I			Stage II			Stage III		
Problem in the Stage	Accepted: 24	Rejected, if any: —		Accepted: 22	Rejected, if any: 25		Accepted: 21	Rejected, if any: —	
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Team →	New Zealand	Russia Voronezh Kvantorium	Georgia National	Russia Voronezh Kvantorium	Georgia National	New Zealand	Georgia National	New Zealand	Russia Voronezh Kvantorium
Presenter's Name → (ask the Team to write the Name on the blackboard or pass you the name tag)	Tom Divehall	Ilya Voronin	Mariam Vakhtangishvili	Aleksander Pilyakin	Tinatin Kokoshvili	Lydia Acton	Anastasia Kartvelishvili	Alex Cochrane	Yulia Kolesova
Juror — Yellow Cards: NR, NP, NT →	—	—	—	—	—	—	—	—	—
Alexander Nadeev	22	14	3	12	5	8	7	17	5
Lacia Vetashkina	21	12	4	10	6	8	7	17	6
Ksenia Wang	20	14	5	10	6	8	7	17	7
Nicola Karavasilev	16	14	5	9	6	8	6	15	5
Mladen Matev	20	10	6	8	6	8	3	12	4
Tsotne Dadiani	21	12	5	11	9	5	7	15	6
Andria Rogava	22	14	3	12	2	7	2	19	8
Anton Khvalyuk	15	10	4	9	4	9	4	17	4
Alena KASTSENKA	19	12	1	11	5	8	2	20	4

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.

6th IYNT 2018: Captain's Contest for Science Fight 4

Team Voronezh Kvantorium Captain's name Ilya Voronin Group B

Problem	Answer	Points (0 or 1) filled by Chairperson
1. Name the physical quantity that is measured in millimeters of mercury.	air pressure	1
2. Paleozoic, Mesozoic, and Cenozoic are three important geological eras in the current geologic eon. Name the geological era in which the 6th IYNT 2018 takes place.	Kainozoic	0
3. Name the species of fish that represent the sole remaining member of a taxon otherwise known only from fossils and have evolved into its current form ca. 400 million years ago.	–	0
4. Is it widely considered that the starting point of modern organic chemistry is Friedrich Wöhler's 1828 discovery that an organic compound can be produced from inorganic starting materials. Name the organic compound he synthesized.	Penicillin (or ... Acid)	0
5. Name the number of lungs in a healthy human.	2	1

1/2

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

6. What is the exact publication year of Darwin's *On the Origin of Species*?		1863

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.

6th IYNT 2018: Captain's Contest for Science Fight 4

Team Georgia Captain's name [illegible] Group B

Problem	Answer	Points (0 or 1) filled by Chairperson
1. Name the physical quantity that is measured in millimeters of mercury.	thickness	0
2. Paleozoic, Mesozoic, and Cenozoic are three important geological eras in the current geologic eon. Name the geological era in which the 6th IYNT 2018 takes place.	Cenozoic	1
3. Name the species of fish that represent the sole remaining member of a taxon otherwise known only from fossils and have evolved into its current form ca. 400 million years ago.	shark	0
4. Is it widely considered that the starting point of modern organic chemistry is Friedrich Wöhler's 1828 discovery that an organic compound can be produced from inorganic starting materials. Name the organic compound he synthesized.		0
5. Name the number of lungs in a healthy human.	2	1

1/2

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

6. What is the exact publication year of Darwin's *On the Origin of Species*?	1837	0

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.

6th IYNT 2018: Captain's Contest for Science Fight 4

Team New Zealand Captain's name Ella Blakely Group B

Problem	Answer	Points (0 or 1) filled by Chairperson
1. Name the physical quantity that is measured in millimeters of mercury.	Blood Pressure	1
2. Paleozoic, Mesozoic, and Cenozoic are three important geological eras in the current geologic eon. Name the geological era in which the 6th IYNT 2018 takes place.		0
3. Name the species of fish that represent the sole remaining member of a taxon otherwise known only from fossils and have evolved into its current form ca. 400 million years ago.		0
4. Is it widely considered that the starting point of modern organic chemistry is Friedrich Wöhler's 1828 discovery that an organic compound can be produced from inorganic starting materials. Name the organic compound he synthesized.	Friedrich Wöhler	0
5. Name the number of lungs in a healthy human.	1	0

1

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

6. What is the exact publication year of Darwin's *On the Origin of Species*?		

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Alexander Nadeev Date 8 July SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any: —	Rejected, if any: ~~11~~ 25	Rejected, if any: —
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zealand T. Pivenall	Voronezh Quantum A. Pilyabin	Georg. N A. Kartvelishvili
Opponent	Voronezh Quantum I. Voronin	~~New Zealand~~ Georg. N. T. Kokoshvili	New Zealand A. Cochrane
Reviewer	Georgia. Nat M. Vahtangishvili	New Zealand L. Aetar	Voron. Quant. Y. Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	**15**	**10**	**5**	**15**	**10**	**5**	**15**	**10**	**5**
α	2+1	2	-1	-2	-3	1	-5	2+1	0
β	1	1	-1	0	-1	1	-2	1	0
γ	1	1	0	-1	-1	1	-0	2	0
δ	0	0	0	0	0	0	-1	0+1	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	22	14	3	12	5	8	7	17	5
Juror's signature	A. Nadeev			A. Nadeev			A. Nadeev		

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Daria Vetoshkina Date 08/07/2018 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any: no	Rejected, if any: 25	Rejected, if any: no
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zeland / Tom Divehall	Voronezh / Aleksander PILYAKIN	Georgia / Anastasiya kartvilishvili
Opponent	Voronezh / Ilya Vorobin	Georgia / Tinatin Kokoshvili	New Zeland Alex cochrane
Reviewer	Georgia / Mariam Vakhtangishvili	New Zeland / Lydia Acton	Voronezh / Yulia Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	**15**	**10**	**5**	**15**	**10**	**5**	**15**	**10**	**5**
α	+3	+2	-1	-3	-3	+1	-4	+3	+1
β	+2	+1	0	-1	-1	+1	-3	+2	0
γ	+1	-1	0	-1	0	+1	-1	+2	0
δ	0	0	0	0	0	0	0	0	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	21	12	4	10	6	8	7	17	6
Juror's signature	Benf-			Benf-			Benf-		

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Ksenija Wang Date 08.07.2018 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any:	Rejected, if any: 25	Rejected, if any:
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zeland Tom Direhall	Voronezh Aleksandar Pilyakin	Georgia Anastasia Kavtvelishvili
Opponent	Voronezh Ilya Voronin	Georgia Timatin Kotoshvili	New Zeland Alex Cochrane
Reviewer	Georgia Mayiam Vakhtangishvili	New Zeland Lydia Acton	Voronezh Yulia Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	**15**	**10**	**5**	**15**	**10**	**5**	**15**	**10**	**5**
α	+2	+1	0	-2	-1	+1	-4	+3	+1
β	+1	+1	0	-2	-1	+1	-2	+2	+1
γ	+1	+2	0	-1	-2	+1	-1	+2	+1
δ	+1	0	0	0	0	0	-1	0	-0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	20	14	5	10	6	8	7	17	7 Ball
Juror's signature	Ball			Ball			Ball		

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Nikola Kolavasilev Date 8 July 2018 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any: /	Rejected, if any: 25	Rejected, if any: /
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zealand Tom Divelhall	Voronezh Aleksander Pelyakin	Georgia Anastasia Kotsellashvili
Opponent	Voronezh Ilya Voronin	Georgia Timofey Kokoshvili	New Zealand Alex Cochrane
Reviewer	Georgia Mariam Vakhtangishvili	New Zealand Lydia Acton	Voronezh Yaelia Koksova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	**15**	**10**	**5**	**15**	**10**	**5**	**15**	**10**	**5**
α	+2	+2	0	-3	-2	+1	-4	+2	0
β	0	+1	0	-1	-1	+1	-2	+1	0
γ	-1	+1	0	-2	-1	+1	-2	+2	0
δ	0	0	0	0	0	0	-1	0	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	16	14	5	9	6	8	6	15	5
Juror's signature									

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Mladen Matev Date 8/07/2018 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24 Myst. catalog	**Accepted:** 22 Mongolfier	**Accepted:** 21 Lung volume
	Rejected, if any: —	Rejected, if any: 25, —	Rejected, if any: —
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zealand Tom Divehall	Voronezh-Russia Aleksander Pilyavin	Georgia-National Anastasia Kaftrelishvili
Opponent	Voronezh-Russia Ilya Voronin	Georgia-National Tinatin Kokoshvili	New Zealand Alex Cochrane
Reviewer	Georgia-National Mariam Vakhtangishvili	New Zealand Lydia Acton	Voronezh-Russia Yulia Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	15	10	5	15	10	5	15	10	5
α	2	-1	0	-2	-2	1	-5.5	0	0
β	1	0.5	0,5	-2	-1	0.5	-2.5	0.5	-0,5
γ	1	0.5	0.5	-2	-1	1	-2.5	1	-0,5
δ	1	0	0	-1	0	0,5	-1.5	0,5	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	20	10	6	8	6	8	3	12	4
Juror's signature	MMatev			MMatev			MMatev		

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Tsotne Dadiani Date 08.07.18 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any:	Rejected, if any: 25	Rejected, if any:
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zealand Tom Dixehall	Alexander Pilyatin Voronezh	Georgian Nation Anastasia Kantveladzhvili
Opponent	Voronezh Ilya Voronin	Tinatin Kokoshvili Georgian Nation	New Zealand Alex Cochrane
Reviewer	Georgian Nation Mariam Vakhtangishvili	Lydia Action New Zealand	Voronezh Yulia Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	**15**	**10**	**5**	**15**	**10**	**5**	**15**	**10**	**5**
α	0	+2	0	-2	0	-1	-4	+2	0
β	+2	+1	0	0	-1	+1	-2	+1	+1
γ	+2	0	0	-2	+1	0	0	+1	0
δ	+2	-1	0	0	-1	0	-2	+1	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	21	12	5	11	9	5	7	15	6
Juror's signature									

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Andria Rogava Date 08.07.18 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any:	Rejected, if any: 25	Rejected, if any:
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	New Zealand Tom Divehall	Voronezh: Aleksander Pilyakin	Georgia National Anastasia Kartvelishvili
Opponent	Voronezh Ilya Voronin	Georgia National: Tinatin Kokoshvili	New Zealand Alex Cochrane
Reviewer	Georgia National Mariam Vaktangishvili	New Zealand: Lydia Acton	Voronezh Yulia Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	**15**	**10**	**5**	**15**	**10**	**5**	**15**	**10**	**5**
α	0	+1	-1	-1	-3	+1	-6	+3	+2
β	+2	+1	0	0	-2	0	-3	+2	0
γ	+2	+1	-1	-1	-2	+1	-2	+2	1
δ	+3	+1	0	-1	-1	0	-2	+2	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	22	14	3	12	2	7	2	19	8
Juror's signature	A. Rogava			A. Rogava			A. Rogava		

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Anton Khvatyuk Date 08.07.18 SF 4 Group 18

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any: —	Rejected, if any: 25	Rejected, if any: —
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
Reporter	Tom Pivehall (New Zealand)	Aleksander Pilya-kin (Russia)	Anastasia Kartvelishvili (Georgia)
Opponent	Ilya Voronin (Russia)	Tinatin Kokoshvili (Georgia)	Alex Cochrane (New Zealand)
Reviewer	Mariam Vakhtan-gishvili (Georgia)	Lydia Acton (New Zealand)	Yulia Kolesova (Russia)

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	15	10	5	15	10	5	15	10	5
α	0	+1	-1	-4	-3	+1	-5	+2	-1
β	0	0	0	0	-1	+1	-2	+2	0
γ	0	0	0	-1	-2	+1	-2	+2	0
δ	0	-1	0	-1	0	+1	-2	+1	0
Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade									
Juror's Grade	15	10	4	9	4	9	4	17	4
Juror's signature									

Please fill clearly and sign before showing your Grades. In case of discrepancy, this Protocol is considered correct (*IYNT Regulations*, Ch. 2, I, 8). No Grade can be corrected retroactively (*IYNT Regulations*, Ch. 1, IX, 1). This Protocol will be scanned and published. Before leaving the Science Fight room, please cross-check your Grades with Attendant's Science Fight Protocol and pass this Protocol to Chairperson in your Group.

Individual Juror's Protocol

Juror's name Alena Kastsenka Date 8.07.18 SF 4 Group B

	Overview of Science Fight		
	Stage I	**Stage II**	**Stage III**
Problem in the Stage	**Accepted:** 24	**Accepted:** 22	**Accepted:** 21
	Rejected, if any: –	Rejected, if any: 25	Rejected, if any: —
	Fill below the names of Teams and Presenters, and any Yellow Cards announced by Chairperson (NR, NP, or NT)		
~~Reporter~~	New Zealand Tom Divehall	Voronezh Aleksandar Pilyakin	Georgia National Anastasia Kortheliashvili
Opponent	Voronezh Ilya Vorotin	Georgia Tivadin Kokoshvili	New Zealand Alex Cochrane
Reviewer	Georgia National Nodjam Vakhtangishvili	New Zealand Lydia Acton	Voronezh Yulia Kolesova

Criteria for Partial Grades

	for Reporter	Range	for Opponent	Range	for Reviewer	Range
α	Essence of the solution. Results. Validity. Scientific methods. Vision of scientific context. Justified conclusions. *Main tasks*: novel ideas, depth. *Inv Yourself*: problem statement. *Additional*: cooperation, resourcefulness	-6...+6	Objective critique. Skeptical inquiry. Relevant, nontrivial, challenging questions. Analysis of Report. Justified opinions. Understanding of scientific context. Valid conclusions, suggestions	-4...+4	Impartial, weighted, analytical Review. Relevant, nontrivial questions. Own, justified conclusions on Report, Opposition, and discussion. Understanding of scientific context	-2...+2
β	Defending own solution. Reaction to critique. Answers	-3...+3	Full focus on Report. Active, substantial argumentation	-2...+2	Critical summarization and wrap up of the Stage	-1...+1
γ	Structured and persuasive presentation. Speaking skills	-3...+3	Structured and persuasive Opposition. Speaking skills	-2...+2	Structured and persuasive Review. Speaking skills	-1...+1
δ	Technicalities, visual aids, demonstrations, team help	-2...+3	Technicalities, visual aids to the Opposition, team help	-1...+2	Technicalities, visual aids to the Review, team help	-0...+1

	Juror's Grades								
	Stage I			**Stage II**			**Stage III**		
	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer	Reporter	Opponent	Reviewer
Starting	15	10	5	15	10	5	15	10	5
α	0	+1	-2	-3	-3	+0	-6	+2	-1
β	+1	0	-1	-1	-1	+1	-3	+2	0
γ	+2	+1	-1	0	-1	+1	-3	+2	0
δ	+1	0	0	0	-1	+1	-1	+2	0
	Sum up the Starting Grade (15, 10, or 5) with all four Partial Grades, and write below your resulting Juror's Grade								
Juror's Grade	19	12	1	11	5	8	2	20	4
Juror's signature									

6th IYNT 2018: Preferences for Semi-Finals

In Tbilisi, July 8, 2018

Team Voronezh

In line with the IYNT Regulations (Ch. 4, II, 4) I herewith submit three preferences for the Problem that my Team would like to report in the Semi-Finals.

First preference (most preferred)	Second preference (less preferred)	Third preference (least preferred)
Quark (№4)	Fair coin №8	All roads lead №2 to Rome

☑ my Team has not reported any of these Problems in any preceding Science Fight

☑ these Problems are among the Problems Nos. 1---17

☑ my Team has been reminded to upload **all** presented slides to *solutions.iypt.org* before the Closing Ceremony

Captain's signature _____ Collected from the Captain (Chairperson's signature) _____

6th IYNT 2018: Preferences for Semi-Finals

In Tbilisi, July 8, 2018

Team Georgia - Next phase

In line with the IYNT Regulations (Ch. 4, II, 4) I herewith submit three preferences for the Problem that my Team would like to report in the Semi-Finals.

First preference (most preferred)	Second preference (less preferred)	Third preference (least preferred)
15) laser pointer	occulted stars 12)	10) greenhouse

☑ my Team has not reported any of these Problems in any preceding Science Fight

☑ these Problems are among the Problems Nos. 1---17

☑ my Team has been reminded to upload **all** presented slides to *solutions.iypt.org* before the Closing Ceremony

Captain's signature _____ Collected from the Captain (Chairperson's signature) _____

6th IYNT 2018: Preferences for Semi-Finals

In Tbilisi, July 8, 2018

Team New Zealand

In line with the IYNT Regulations (Ch. 4, II, 4) I herewith submit three preferences for the Problem that my Team would like to report in the Semi-Finals.

First preference (most preferred)	Second preference (less preferred)	Third preference (least preferred)
13) Blood Pressure	12) Occulted Stars	10) Greenhouse

☑ my Team has not reported any of these Problems in any preceding Science Fight

☑ these Problems are among the Problems Nos. 1---17

☑ my Team has been reminded to upload **all** presented slides to *solutions.iypt.org* before the Closing Ceremony

Captain's signature _____ Collected from the Captain (Chairperson's signature) _____