

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{4} + \boxed{2} - \boxed{0} = \boxed{7}$$

stage:

3

fight (round no.):

1

room:

F

problem no.:

N6

Juror's name:

Olga Inishera

reporter:

NZ

opponent:

Azerb

reviewer:

Can

signature:

Olga Inishera

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair	fair	not well fitting	some own input	average
3	good ✓	good ✓	well performed, ✓	deviations ✓	some interesting results ✓	interesting solution
4	detailed ✓	quite detailed, ✓	sufficient number ✓	qualitatively analysed ✓	considerable experimental ✓	some aspects ✓
5	demonstrative ✓	correct ✓	+ results explained ✓	+ theory limits ✓	or theoretical ✓	above average ✓
6	deep and comprehensible, ✓	detailed, complex, ✓	errors analysed ✓	explained, conclusive ✓	considerable experimental ✓	greater extent ✓
	shows physical insight	completely testable	+ reproducible, ✓	well fitting, deviations analysed, conclusive	and theoretical	than expected

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical	some ✓	avoided some questions
2	points cleared ✓	many ✓	cooperated well
3	some scientific points cleared ✓	+ data/theory ✓	answered directly ✓
4	interesting points discussed ✓	convincingly supported ✓	to most questions
	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{1} + \boxed{1} + \boxed{1} - \boxed{0} = \boxed{4}$$

QUESTIONS ASKED

- 0 — almost no, irrelevant
- 1 — some relevant, aimed at resolving some unclear points
- 2 — short allowing short answers, prioritized, all time used

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no ✓	no
1	very little ✓	some main points ✓	few ✓	some	almost no ✓
2	not all	main points	some	to important topics	some
3	almost all	all relevant points	many	to most topics	reasonable
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little ✓	some ✓	some ✓	to some extent ✓	almost no
2	partial	average	some correct	leading or cooperative	some
3	good	many	many correct	quite efficient	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{2} + \boxed{2} + \boxed{2} - \boxed{0} = \boxed{7}$$

QUESTIONS ASKED

- 0 — too few, mostly irrelevant
- 1 — some relevant, sufficient number, could clear things out
- 2 — most time used, many unclear points resolved, aimed at both rep. and opp. ✓
- 3 — +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	partial	too short/long	some	partially relevant	almost no ✓
2	good ✓	relevant parts ✓	many ✓	mostly adequate ✓	some
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long ✓	some	partially relevant	almost no
2	informative, apt ✓	relevant parts ✓	many ✓	mostly adequate ✓	some ✓
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 2 - 0 = 7$$

stage: 1

fight (round no.): 3

room: F

problem no.: 6

reporter: NEW ZEALAND

opponent: AZERBAIJAN

reviewer: CANADA

Juror's name: STANISLAV
signature: PAKOS

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS		
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency			
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	almost no, chaotic	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	avoided some questions	1	some incorrect, inconclusive or too long
2	fair	fair	fair	not well fitting	some own input	average	2	points cleared	many	cooperated well	2	deeply incorrect or show deep misconceptions
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	3	some scientific points cleared			3	
4	detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	4	
5	demonstrative	detailed, complex, completely testable	errors analysed	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected		brought in new physics	proved deep understanding	efficient, productive		
6	deep and comprehensible, shows physical insight		+ reproducible, convincing analysis									
NOTES:	4	4	3	4	4	5	2	2,5	3,5			

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 12 + 1 - 0 = 4$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
0	almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	0	concise and correct or no questions asked
1	some relevant, aimed at resolving some unclear points	almost no	almost nothing	no or irrelevant	almost no	no	almost no	irrelevant	very little	almost no	no	1	some incorrect, inconclusive or too long
2	short allowing short answers, prioritized, all time used	very little	some main points	few	some	almost no	little	some	some	to some extent	almost no	2	deeply incorrect or show deep misconceptions
		not all	main points	some	to important topics	some	partial	average	some correct	leading or cooperative	some		
		almost all	all relevant points	many	to most topics	reasonable	good	many	many correct	quite efficient	reasonable		
		all & efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good		
NOTES:		1	1	1	1	2	1,5	1	0,5	0,5	1,5		

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2,5 + 2,5 - 0,5 = 7$$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
0 — too few, mostly irrelevant	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	0 — concise and correct or no questions asked
1 — some relevant, sufficient number, could clear things out	0 — poor	almost no	too few	irrelevant	no	0 — poor	almost no	too few	irrelevant	no	➔ — some incorrect, inconclusive or too long
2 — most time used, many unclear points resolved, aimed at both rep. and opp.	1 — partial	too short/long	some	partially relevant	almost no	1 — too short/long	too short/long	some	partially relevant	almost no	— deeply incorrect or show deep misconceptions
3 — +short, apt and clear, well prioritized time managed efficiently	2 — good	relevant parts	many	mostly adequate	some	2 — informative, apt	relevant parts	many	mostly adequate	some	
	3 — detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	3 — brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good	
NOTES:	3	2,5	2,5	2,5	2						-0,5

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 2.5 - 1 = 6.5$$

stage: 1

fight (round no.): 3

room: F

problem no.: 6

Juror's name: QZAN Sun

reporter: NZ

opponent: Azar

reviewer: Canadian

signature: C. QZAN Sun

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS		
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency			
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	almost no, chaotic	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	1	only technical	some	avoided some questions	1	some incorrect, inconclusive or too long
2	fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	cooperated well	2	deeply incorrect or show deep misconceptions
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	3	
4	detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	efficient, productive	4	
5	demonstrative		errors analysed	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected						
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis									

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 1 - 1 = 2$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
0	almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	0	concise and correct or no questions asked
1	some relevant, aimed at resolving some unclear points	0	almost no	almost nothing	no or irrelevant	almost no	0	almost no	irrelevant	very little	almost no	0	no
2	short allowing short answers, prioritized, all time used	1	very little	some main points	few	some	1	little	some	some	to some extent	1	almost no
		2	not all	main points	some	to important topics	2	partial	average	some correct	leading or cooperative	2	some
		3	almost all	all relevant points	many	to most topics	3	good	many	many correct	quite efficient	3	reasonable
		4	all & efficiently	practically all points	practically all	+ improvement suggestions	4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	4	very good
NOTES:												-1 some incorrect, inconclusive or too long	
												-2 deeply incorrect or show deep misconceptions	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2 + 2 - 0.5 = 6.5$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
0	too few, mostly irrelevant	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	0	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	0	concise and correct or no questions asked
1	some relevant, sufficient number, could clear things out	poor	almost no	too few	irrelevant	no	1	poor	almost no	too few	irrelevant	no	1	some incorrect, inconclusive or too long
2	most time used, many unclear points resolved, aimed at both rep. and opp.	partial	too short/long	some	partially relevant	almost no	2	too short/long	too short/long	some	partially relevant	almost no	2	deeply incorrect or show deep misconceptions
3	+short, apt and clear, well prioritized time managed efficiently	good	relevant parts	many	mostly adequate	some	3	informative, apt	relevant parts	many	mostly adequate	some	3	
		detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good		brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good		

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{3} + \boxed{2} - \boxed{0} = \boxed{6}$$

stage: 3

fight (round no.): 1

room: F

problem no.: 6

Juror's name: RIMORAEK

reporter: New Zealand

opponent: Azerbaijan

reviewer: Canada

signature: U. U. U. U. U.

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency	
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	almost no	too few	almost no, chaotic	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some	some	some	some	review of sources, cited	partly	only technical	some	avoided some questions	
2	fair	fair	fair	not well fitting +	some own input	average	some scientific points cleared	many	cooperated well	
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	interesting points	+ data/theory	answered directly	
4	detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	discussed	convincingly supported	to most questions	
5	demonstrative	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	brought in new physics	proved deep understanding	efficient, productive	
6	deep and comprehensible, shows physical insight									

NOTES:

+ explanation of the difference between theory and experiments!

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{0.5} + \boxed{1} + \boxed{2} - \boxed{0} = \boxed{4}$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0	almost no, irrelevant	almost no	almost nothing	no or irrelevant	almost no	no	almost no	irrelevant	very little	almost no	no	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some relevant, aimed at resolving some unclear points	very little	some main points	few	some	almost no	little	some	some	to some extent	almost no	
2	short allowing short answers, prioritized, all time used	not all	main points	some	to important topics	some	partial	average	some correct	leading or cooperative	some	
3		almost all	all relevant points	many	to most topics	reasonable	good	many	many correct	quite efficient	reasonable	
4		all & efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{3} + \boxed{2} + \boxed{2} - \boxed{0} = \boxed{8}$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	
0	too few, mostly irrelevant	poor	almost no	too few	irrelevant	no	poor	almost no	too few	irrelevant	no	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, could clear things out	partial	too short/long	some	partially relevant	almost no	too short/long	too short/long	some	partially relevant	almost no	
2	most time used, many unclear points resolved, aimed at both rep. and opp.	good	relevant parts	many	mostly adequate	some	informative, apt	relevant parts	many	mostly adequate	some	
3	+short, apt and clear, well prioritized time managed efficiently	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good	
4												

NOTES:

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{\text{scribble}} + \boxed{22} - \boxed{0} = \boxed{1}$$

stage:

fight (round no.):

room:

problem no.:

Juror's name:

reporter:

Opponent:

reviewer:

signature:

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair	fair	not well fitting	some own input	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution
4	detailed demonstrative	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical points cleared	some	avoided some questions
2	some scientific points cleared	many	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
4	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY,
OPPONENT and
REVIEWER'S QUESTIONS

NOTES: discrepancy not explained (drag ~~is~~ cannot be a good answer), tension influence ~~is also important~~ should be considered in model

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{\text{scribble}} + \boxed{1} + \boxed{1} - \boxed{0} = \boxed{4}$$

QUESTIONS ASKED

QUESTIONS ASKED

0	— almost no, irrelevant
1	— some relevant, aimed at resolving
2	— some unclear points
3	— short allowing short answers, prioritized, all time used

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	to important topics	some
3	almost all	all relevant points	many	to most topics	reasonable
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little	some	some	to some extent	almost no
2	partial	average	some correct	leading or cooperative	some
3	good	many	many correct	quite efficient	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and
REVIEWER'S QUESTIONS

0 — concise and correct or no questions asked
—
—
-1 — some incorrect, inconclusive or too long
—
—
-2 — deeply incorrect or show deep misconceptions

NOTES:

REVIEWER

- Start from 1 and add/subtract

$$1 + \boxed{\text{scribble}} + \boxed{\text{scribble}} + 1.6 - \boxed{\text{scribble}} = \boxed{6}$$

QUESTIONS ASKED

0 — too few, mostly irrelevant
1 — some relevant, sufficient number, could clear things out
2 — ~~most time used, many unclear points resolved, aimed at both rep. and opp.~~
3 — +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	partial	too short/long	some	partially relevant	almost no
2	good	relevant parts	many	mostly adequate	some
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

0 — concise and correct or
no questions asked

-1 — some incorrect,
inconclusive or too long

-2 — deeply incorrect or show
deep misconceptions

NOTES: ~~impulse~~ collision type, tension influence not reported/expressed in speech

SCORESHEET

REPORTER

Start from 1 and add/subtract
1 + 2.75 + 1.5 - 0 = 5

stage: 1

fight (round no.): 2

room: F

problem no.: 9

reporter: CANADA

opponent: NEW ZEALAND

reviewer: AZERBAIJAN

Juror's name: STANISLAV PALOS

signature: P. a - 2

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair	fair	not well fitting	some own input	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected

NOTES:

4

3

2.5

2

3

2

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical points cleared	some	avoided some questions
2	some scientific points cleared	many	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
4	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
-1 — some incorrect, inconclusive or too long
-2 — deeply incorrect or show deep misconceptions

OPPONENT

Start from 1 and add/subtract
1 + 1 + 2 + 3 - 0 = 7

	QUESTIONS ASKED
0	almost no, irrelevant
1	some relevant, aimed at resolving some unclear points
2	short allowing short answers, prioritized, all time used

NOTES:

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	to important topics	some
3	almost all	all relevant points	many	to most topics	reasonable
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little	some	some	to some extent	almost no
2	partial	average	some correct	leading or cooperative	some
3	good	many	many correct	quite efficient	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
-1 — some incorrect, inconclusive or too long
-2 — deeply incorrect or show deep misconceptions

REVIEWER

Start from 1 and add/subtract
1 + 0 + 1.5 + 1.5 - 1 = 3 rec. P. - 2

	QUESTIONS ASKED
0	too few, mostly irrelevant
1	some relevant, sufficient number, could clear things out
2	most time used, many unclear points resolved, aimed at both rep. and opp.
3	+short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	partial	too short/long	some	partially relevant	almost no
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3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

- 0 — concise and correct or no questions asked
-1 — some incorrect, inconclusive or too long
-2 — deeply incorrect or show deep misconceptions

NOTES:

1.5

1.5

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{2.5} + \boxed{2.25} - \boxed{0} = \boxed{5.75} \rightarrow 6$$

stage: 2

fight (round no.): 1

room: F

problem no.: 9

Juror's name: Olga Inisheva

reporter: Canada

opponent: NZ

reviewer: Azerbaijan

signature: *[Signature]*

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair ✓	fair ✓	not well fitting	some own input ✓	average
3	good ✓	good	well performed, sufficient number	deviations ✓	some interesting results	interesting solution ✓
4	detailed demonstrative	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical points cleared	some	avoided some questions
2	some scientific points cleared ✓	many ✓	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions ✓
4	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES: equilibrium point?

≈ 2.25 (33)

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{1.0} + \boxed{3} + \boxed{2.5} - \boxed{0} = \boxed{7}$$

QUESTIONS ASKED

- 0 — almost no, irrelevant
- 1 — some relevant, aimed at resolving some unclear points ✓
- 2 — short allowing short answers, prioritized, all time used ✓

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	to important topics	some
3	almost all ✓	all relevant points ✓	many ✓	to most topics ✓	reasonable ✓
4	all & efficiently	practically all points	practically all	+ improvement suggestions ✓	very good ✓

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little	some	some ✓	to some extent	almost no
2	partial	average	some correct	leading or cooperative	some ✓
3	good ✓	many ✓	many correct	quite efficient ✓	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

≈ 3

≈ 2.25 (23)

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{0} + \boxed{1} + \boxed{1} - \boxed{0} = \boxed{3}$$

QUESTIONS ASKED

- 0 — too few, mostly irrelevant
- 1 — some relevant, sufficient number, could clear things out
- 2 — most time used, many unclear points resolved, aimed at both rep. and opp.
- 3 — +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few ✓	irrelevant	no ✓
1	partial ✓	too short/long ✓	some	partially relevant ✓	almost no
2	good	relevant parts	many	mostly adequate	some
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few ✓	irrelevant	no
1	too short/long ✓	too short/long ✓	some	partially relevant ✓	almost no ✓
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract
1 + 25.3 + 2.5 - 2.5 = 5

stage: 1

fight (round no.): 2

room: F

problem no.: 9

Juror's name: QZAN SUN

reporter: Conner

opponent: N2

reviewer: Azor

signature: QZAN SUN

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair	fair	not well fitting	some own input	average
3	good	good	well performed, sufficient number	qualitatively analysed	some interesting results	interesting solution
4	detailed	quite detailed, correct	+ results explained	+ theory limits	considerable experimental or theoretical	some aspects above average
5	demonstrative	detailed, complex, completely testable	errors analysed	explained, conclusive	considerable experimental and theoretical	greater extent than expected
6	deep and comprehensible, shows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive		

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical points cleared	some	avoided some questions
2	some scientific points cleared	many	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
4	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

OPPONENT

Start from 1 and add/subtract
1 + 1.5 + 2.5 + 2.0 - 0.5 = 6

QUESTIONS ASKED
0 — almost no, irrelevant
1 — some relevant, aimed at resolving some unclear points
2 — short allowing short answers, prioritized, all time used

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	to important topics	some
3	almost all	all relevant points	many	to most topics	reasonable
4	efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little	some	some	to some extent	almost no
2	partial	average	some correct	leading or cooperative	some
3	good	many	many correct	quite efficient	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

REVIEWER

Start from 1 and add/subtract
1 + 0 + 1.5 + 1.5 - 1 = 3

QUESTIONS ASKED
0 — too few, mostly irrelevant
1 — some relevant, sufficient number, could clear things out
2 — most time used, many unclear points resolved, aimed at both rep. and opp.
3 — +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	partial	too short/long	some	partially relevant	almost no
2	good	relevant parts	many	mostly adequate	some
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{2} + \boxed{2} - \boxed{0} = \boxed{5}$$

stage: 2

fight (round no.): 1

room: F

problem no.:

reporter: CANADA

opponent: NEW ZEALAND

reviewer: AZERBAIJAN

Juror's name: KONDRATEK

signature: Uudid

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair	fair	not well fitting	some own input	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution
4	detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	demonstrative	correct	errors analysed	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	convincing analysis	analysed, conclusive		

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical points cleared	some	avoided some questions
2	some scientific points cleared	many	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
4	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{4} + \boxed{2} + \boxed{25} - \boxed{0} = \boxed{7}$$

QUESTIONS ASKED

- 0 — almost no, irrelevant
- 1 — some relevant, aimed at resolving some unclear points
- 2 — short allowing short answers, prioritized, all time used

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	to important topics	some
3	almost all	all relevant points	many	to most topics	reasonable
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little	some	some	to some extent	almost no
2	partial	average	some correct	leading or cooperative	some
3	good	many	many correct	quite efficient	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{0} + \boxed{1.5} + \boxed{1.5} - \boxed{1} = \boxed{3}$$

QUESTIONS ASKED

- 0 — too few, mostly irrelevant
- 1 — some relevant, sufficient number, could clear things out
- 2 — most time used, many unclear points resolved, aimed at both rep. and opp.
- 3 — +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	partial	too short/long	some	partially relevant	almost no
2	good	relevant parts	many	mostly adequate	some
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES:

SCORESHEET

REPORTER

1 + 2 + 3 - 0 = 6

stage: 2

fight (round no.): 1

room: F

problem no.: 9

Juror's name: FANG-YUH KO

reporter: Richard Zhu

opponent: Finn Hessel

reviewer: Kamran Gasimov

signature: Fang-Yuh Ko

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS			
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency			
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	almost no, chaotic	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	avoided some questions	1	some incorrect, inconclusive or too long
2	fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	cooperated well	2	deeply incorrect or show deep misconceptions
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	3	
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	efficient, productive	4	
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected						

NOTES: mistakes in theory model
inadequate experimental results in presentation

OPPONENT

1 + 1.7 + 3.5 - 0 = 8

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
0	almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	0	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	0	concise and correct or no questions asked
1	some relevant, aimed at resolving some unclear points	almost no	almost nothing	no or irrelevant	almost no	no	1	little	some	some	to some extent	almost no	1	some incorrect, inconclusive or too long
2	short allowing short answers, prioritized, all time used	very little	some main points	few	some	almost no	2	partial	average	some correct	leading or cooperative	some	2	deeply incorrect or show deep misconceptions
		not all	main points	some	to important topics	some	3	good	many	many correct	quite efficient	reasonable	3	
		almost all	all relevant points	many	to most topics	reasonable	4	new physical points	almost all	+ improvement suggestions	very efficient	very good	4	
		efficiently	practically all points	practically all	+ improvement suggestions	very good								

NOTES:

central force + frictional force

NOTES: central force + buoyant force
still not clearly discussed
too rash in finish

REVIEWER

1 + 0 + 0.5 - 0 = 2

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
0	too few, mostly irrelevant	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	0	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	0	concise and correct or no questions asked
1	some relevant, sufficient number, could clear things out	poor	almost no	too few	irrelevant	no	1	poor	almost no	too few	irrelevant	no	1	some incorrect, inconclusive or too long
2	most time used, many unclear points resolved, aimed at both rep. and opp.	partial	too short/long	some	partially relevant	almost no	2	too short/long	too short/long	some	partially relevant	almost no	2	deeply incorrect or show deep misconceptions
3	+short, apt and clear, well prioritized time managed efficiently	good	relevant parts	many	mostly adequate	some	3	informative, apt	relevant parts	many	mostly adequate	some	3	
		detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good		brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good		

NOTES: no questions asked

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 - 0 = 4$$

stage: 1

fight (round no.): 1

room: F

problem no.: 4, 7, 3, 17

Juror's name: STANISLAV
signature: PANOS R-C

reporter: AZERBAIJAN opponent: CANADA

reviewer: NEW ZEALAND

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	almost no	too few	almost no, chaotic	0 concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	only technical	some	avoided some questions	
2 fair	fair	fair	not well fitting	some own input	average	points cleared	many	cooperated well	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	some scientific points cleared			
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	
5 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	brought in new physics	proved deep understanding	efficient, productive	

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 3 + 1.5 - 2 = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0 almost no, irrelevant		almost no	almost nothing	no or irrelevant	almost no	no	almost no	irrelevant	very little	almost no	no	0 concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1 some relevant, aimed at resolving some unclear points		very little	some main points	few	some	almost no	little	some	some	to some extent	almost no	
2 short allowing short answers, prioritized, all time used		not all	main points	some	to important topics	some	partial	average	some correct	leading or cooperative	some	
		almost all	all relevant points	many	to most topics	reasonable	good	many	many correct	quite efficient	reasonable	
		all & efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2.5 + 2 - 0 = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	
0 too few, mostly irrelevant		poor	almost no	too few	irrelevant	no	poor	almost no	too few	irrelevant	no	0 concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1 some relevant, sufficient number, could clear things out		partial	too short/long	some	partially relevant	almost no	too short/long	too short/long	some	partially relevant	almost no	
2 most time used, many unclear points resolved, aimed at both rep. and opp.		good	relevant parts	many	mostly adequate	some	informative, apt	relevant parts	many	mostly adequate	some	
3 +short, apt and clear, well prioritized time managed efficiently		detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good	

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract
1 + 1.5 + 1 - 0 = 4

stage: 1

fight (round no.): 1

room: F

problem no.: 17

Juror's name: FANG-YUH 20

reporter: Ginyat Syarif

opponent: Tian Miao Yu

reviewer: Eric Confmann

signature: Fang Yuh Le

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS		
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency			
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	almost no, chaotic	0	concise and correct or
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	avoided some questions	1	no questions asked
2	fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	cooperated well	2	some incorrect,
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	3	inconclusive or too long
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	efficient, productive	4	deeply incorrect or show deep misconceptions
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected						

NOTES:

OPPONENT

Start from 1 and add/subtract
1 + 1 + 2.5 + 2 - 0 = 7

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
0	almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	0	concise and correct or no questions asked	
1	some relevant, aimed at resolving some unclear points	0	almost no	almost nothing	no or irrelevant	almost no	0	almost no	irrelevant	very little	almost no	no	1	some incorrect, inconclusive or too long
2	short allowing short answers, prioritized, all time used	1	very little	some main points	few	some	1	little	some	some	to some extent	almost no	-1	deeply incorrect or show deep misconceptions
		2	not all	main points	some	to important topics	2	partial	average	some correct	leading or cooperative	some		
		3	almost all	all relevant points	many	to most topics	3	good	many	many correct	quite efficient	reasonable		
		4	all & efficiently	practically all points	practically all	+ improvement suggestions	4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good		
NOTES:														

NOTES:

REVIEWER

Start from 1 and add/subtract
1 + 2 + 1.5 - 0 = 6

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
0	too few, mostly irrelevant	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	0	concise and correct or no questions asked
1	some relevant, sufficient number, could clear things out	poor	almost no	too few	irrelevant	no	poor	almost no	too few	irrelevant	no	1	
2	most time used, many unclear points resolved, aimed at both rep. and opp.	partial	too short/long	some	partially relevant	almost no	too short/long	too short/long	some	partially relevant	almost no	2	some incorrect, inconclusive or too long
3	+short, apt and clear, well prioritized time managed efficiently	good	relevant parts	many	mostly adequate	some	informative, apt	relevant parts	many	mostly adequate	some	3	deeply incorrect or show deep misconceptions
		detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good		

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 1 + 1.5 - 0 = 3$$

stage: 1

fight (round no.): 1

room: F

problem no.: 17

reporter: AZERBAIJAN

opponent: CANADA

reviewer: NEW ZEALAND

Juror's name: KONDRAK

signature: [Signature]

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	almost no	too few	almost no, chaotic		
1	some	some	some	some	review of sources, cited	partly	only technical points cleared	some	avoided some questions	0	concise and correct or no questions asked
2	fair	fair	fair	not well fitting	some own input	average	some scientific points cleared	many	cooperated well		
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	interesting points discussed		answered directly to most questions	-1	some incorrect, inconclusive or too long
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	brought in new physics	+ data/theory convincingly supported	efficient, productive	-2	deeply incorrect or show deep misconceptions
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected		proved deep understanding			
6											

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 2 + 1.5 - 0 = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
0	almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	0	concise and correct or no questions asked
1	some relevant, aimed at resolving some unclear points	almost no	almost nothing	no or irrelevant	almost no	no	almost no	irrelevant	very little	almost no	no		
2	short allowing short answers, prioritized, all time used	very little	some main points	few	some	almost no	little	some	some	to some extent	almost no	-1	some incorrect, inconclusive or too long
		not all	main points	some	to important topics	some	partial	average	some correct	leading or cooperative	some		
		almost all	all relevant points	many	to most topics	reasonable	good	many	many correct	quite efficient	reasonable	-2	deeply incorrect or show deep misconceptions
		all & efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good		
NOTES:													

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2 + 2 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
0	too few, mostly irrelevant	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	0	concise and correct or no questions asked
1	some relevant, sufficient number, could clear things out	poor	almost no	too few	irrelevant	no	poor	almost no	too few	irrelevant	no	-1	some incorrect, inconclusive or too long
2	most time used, many unclear points resolved, aimed at both rep. and opp.	partial	too short/long	some	partially relevant	almost no	too short/long	too short/long	some	partially relevant	almost no	-2	deeply incorrect or show deep misconceptions
3	+short, apt and clear, well prioritized time managed efficiently	good	relevant parts	many	mostly adequate	some	informative, apt	relevant parts	many	mostly adequate	some		
		detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good		

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{1} + \boxed{13} - \boxed{0} = \boxed{3}$$

stage: 1

fight (round no.): 1

room: F

problem no.: N17

Juror's name: Olga Inishev

reporter: Azerbaijan Canada

opponent:

reviewer: N7

signature: 

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	some	some	some	some	review of sources, cited	partly
2	fair	fair	fair	not well fitting	some own input	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution
4	detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	demonstrative	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected
6	deep and comprehensible, shows physical insight					

DISCUSSION WITH OPPONENT

	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical points cleared	some	avoided some questions
2	some scientific points cleared	many	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
4	brought in new physics	proved deep understanding	efficient, productive

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES: theoretical velocity > speed of the sound in the air?

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{15} + \boxed{24} + \boxed{2} - \boxed{0} = \boxed{7}$$

QUESTIONS ASKED

- 0 — almost no, irrelevant
- 1 — some relevant, aimed at resolving some unclear points
- 2 — short allowing short answers, prioritized, all time used

OPPOSITION (SPEECH)

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	to important topics	some
3	almost all	all relevant points	many	to most topics	reasonable
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	irrelevant	very little	almost no	no
1	little	some	some	to some extent	almost no
2	partial	average	some correct	leading or cooperative	some
3	good	many	many correct	quite efficient	reasonable
4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

$$(4 + 2 \times 4) : 5 = 2.4$$

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{23} + \boxed{2} + \boxed{2} - \boxed{0} = \boxed{7}$$

QUESTIONS ASKED

- 0 — too few, mostly irrelevant
- 1 — some relevant, sufficient number, could clear things out
- 2 — most time used, many unclear points resolved, aimed at both rep. and opp.
- 3 — +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	partial	too short/long	some	partially relevant	almost no
2	good	relevant parts	many	mostly adequate	some
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

ANSWERS TO JURY QUESTIONS

- 0 — concise and correct or no questions asked
- 1 — some incorrect, inconclusive or too long
- 2 — deeply incorrect or show deep misconceptions

NOTES: >2 <<3

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 - 1 = 3$$

stage: 1

fight (round no.): 1

room: F

problem no.: 17

Juror's name: QIAN SUN

reporter: Azerbaijan

opponent: Canada

reviewer: New Zealand

signature: Qian Sun

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS		
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency			
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	almost no, chaotic	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	avoided some questions	1	some incorrect, inconclusive or too long
2	fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	cooperated well	2	deeply incorrect or show deep misconceptions
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	3	
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	efficient, productive	4	
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected						

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 - 1 = 4$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
0	almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	0	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	0	concise and correct or no questions asked
1	some relevant, aimed at resolving						1						1	some incorrect, inconclusive or too long
2	some unclear points						2						2	deeply incorrect or show deep misconceptions
	short allowing short answers, prioritized, all time used						3						3	
							4						4	
NOTES:														

NOTES:

REVIEWER

Start from 1 and add/subtract




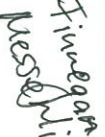



$$1 + 2 + 2.5 - 1.5 = 4$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation		speech summary	discussion analysis	own opinions	pros & cons	prioritisation		
0	too few, mostly irrelevant						0						0	concise and correct or no questions asked
	some relevant, sufficient number, could clear things out													
1							1							
	most time used, many unclear points resolved, aimed at both rep. and opp.													
2							2							
	+short, apt and clear, well prioritized time managed efficiently													
3							3							

NOTES:

Round: 1 Room: F Fight Assistants: CLARENCE LIU HUIHONG, LAWTEE HING



Team	Stage 1			Stage 2			Stage 3			Stage 4		
	Azerbaijan Rep	Canada Opp	New Zealand Rev	Canada Rep	New Zealand Opp	Azerbaijan Rev	New Zealand Rep	Azerbaijan Opp	Canada Rev	Rep	Opp	Rev
Chia Sun	3	6	7	5	6	3	6	3	7			
Olya Luiskava	3	7	7	6	7	3	7	4	7			
Frantšek Kudracker	3	6	7	5	7	3	6	4	8			
Fang-Yuh Lo	4	7	6	6	8	2	7	4	6			
Stanislav Panos	4	7	8	5	7	3	7	4	7			
Acting Team Member	<div><div></div><div>Richard Zhu</div></div>	<div><div></div><div>Fiumegari Messelmi</div></div>	<div><div></div><div>Kamran Gasimov</div></div>	<div><div></div><div>Fiumegari Messelmi</div></div>	<div><div></div><div>Givort Lyetfor</div></div>	<div><div></div><div>Sigan Ho</div></div>						
Rejected Problems	4, 7, 3											
Accepted Problem	17			9			6					

Signature Fight Assistant: Double-checked with Scoring Guidelines by second Fight Assistant (signature):