SCORESHEET

REPORTER Start from 1 and add/subtract

$1 + 1.5 + 1 - 0.5 = 3$

Fight 1 A, Stage: 1, Problem No. __1__

sign _(signature)_ Badin, Matej

Rep: Greece _Christos Bovolis_   **Opp: Russia** _Shashorin Andrey_   **Rev: China** _Hanyue Wang_

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental _or_ theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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:
Rejected: 6 Hurricane balls | • Relevant parameters speed fixed/input voltage | • List of all... • Hearing signal | • Voltage High/Low speed | Optimum.. height of sheets | • Unclear presentation not meaning | Changes of the air between? | Q: Shape of electrodes – plates why not sharp
• Qualitative explanation | external electrode | • Frequency analysis of sound → irrelevant for the phenomenon | • Hard to follow experiments | Q: Tangential placement ? | | | Q: Why RPM from sound and not camera?
 | | fixed input voltage → not satisfied | | | | Q: What is high voltage/Low voltage
 | | | | | | | What is high speed/low speed
 | | | | | | | Q: Distance?

OPPONENT Start from 1 and add/subtract

$1 + 1 + 2.5 + 1.0 - = 5$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

NOTES:
Slide 4
Constant speed   It could not be controlled
Cases: High/Low voltage Value of voltage
High/Low speed Vacuum — misunderstood by reporter

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

• Simple motor
• Control of parameters
• Missing optimisation

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall efficient	very good

• Not clear where he is mixing with question → corona discharge
• Sharpness
• Thickness of | • Vacuum!
• Tang!
• Checked perpendicular tang. turbine !
• Good question | Summarizes
• Electrodes
• Thickness
• Tangential of shape
• Limitines the minimal speed

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

$1 + 1.5 + 2 + 2 + 1 \pm 0 - = 8$

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1	+ suitably allotted to Rep & Opp, most time used
1.5	
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: • Charges – positive
• Dielectric surface of bottle → Plastic? → On the bottle
• Sparks → boundary condition... sparks # sparks
• Critical voltage • Parameters position
• Breakdown voltage • Optimal angle → tangential

IYPT – March 2019

Please, suitably adjust your grades taking into regard the [1,10] range.

Rejected: 6

SCORESHEET
Fight 1 A, Stage: 1, Problem No. _1_   sign _[signature]_

Rep: **Greece**   Opp: **Russia**   Rev: **China**

Hogan, Kent

REPORTER

Start from 1 and add/subtract

$1 + 1½ + 1 - ½ = 3$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
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3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
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5							
6	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	+ complex concepts well communicated
7							

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
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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: Limited experimental work and unclear explanation

OPPONENT

Start from 1 and add/subtract

$1 + 1 + 2¼ + 2 - 0 = 6$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

NOTES: Good points but not clearly stated opinions

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
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2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
	good	many correct	some aspects efficient	fair
3	new crucial point(s)	+ improvement suggestions	overall efficient	very good
4				

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

$1 + [crossed out] + 2 + 2 + [crossed out] ± ½ - 0 = [crossed out]$ 7½ round down to 7

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
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REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
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DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: Well done in general, could have used question time more efficiently

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER   Start from 1 and add/subtract

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

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
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(own contribution marked "? none?", science communication circled "unclear, chaotic", task fulfilment "partly" circled; phenomenon "some", theory "some", relevant experiments "too few" and "some" circled, comparison none)

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
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	many	good
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3	proved deep understanding	overall efficient

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: No mention of optimization; misunderstood problem statement — input voltage not meant to be parameter. Many parameters not investigated; eg friction. Table of expt results poorly organized and not quantified. Nice expt method to use pick and paper and microphone to pick up rotation speed. Wimshurst machine definitely more than 10V output?

OPPONENT   Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{2} + \boxed{1\cdot2} - \boxed{0} = \boxed{5}$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

NOTES: Many flaws in report pointed out.

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
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1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
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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

Opportunities for many points of discussion; opponent able to prioritize these points, but covered details without bigger scientific evaluative point of how the report falls short; missed distinction between ionic wind and electrostatic clarified a lot; Did not move discussion attraction/repulsion. to a higher level.

REVIEWER   Start from 1 and add/subtract

$1 + \boxed{1\cdot2} + \boxed{2} + \boxed{2} + \boxed{0\cdot4} \pm \boxed{0} - \boxed{0} = \boxed{6}$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
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REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
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DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
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MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: Fundamental physics understanding shown in evaluation; Able to catch nuanced points of discussion, eg. tangential force absent when electrodes perpendicular not being fault of absence of corona discharge.

Please, suitably adjust your grades taking into regard the [1,10] range.

SCORESHEET

Invent Yourself.

sign Spandey

Pandey, Shashikant

Fight **1** A, Stage: **1**, Problem No. **1**

Rep: **Greece**   Opp: **Russia**   Rev: **China**

REPORTER

Start from 1 and add/subtract

1 + 1.5 + 1.5 − 0 = 4

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
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DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
	some	some aspects fine
1	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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 + 1.5 + 2 − 0 = 6

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
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2	main points	some	some correct	reasonable	fair
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4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
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4	new crucial point(s)	+ improvement suggestions	overall 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 + 1.5 + 2.5 + 2 + 1.5 ± 0.5 − 0 = 8

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
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DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
	too short/long	some
1	relevant parts	many
	accurate,	fully
2	conclusive	adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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:

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER   Start from 1 and add/subtract

$1 + \boxed{1.5} + \boxed{2} - \boxed{1} = \boxed{3.5}$ ³

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution *N/A*	task fulfilment	science communication
0	almost no	~~almost no~~	too few	no / almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	~~some~~	some	~~some~~	some	review of sources, cited	~~partly~~	partly clear
2	~~fair~~	fair	fair	not well fitting	some own input	average	~~average~~
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
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DISCUSSION WITH OPPONENT

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ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS

0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
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NOTES: + corona discharge
– other electrostatic effects
+ setup works / verified param
– only qualitative measurements (even qualitative)
– no theory
– optimize → give best values

OPPONENT   Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{2.5} + \boxed{1.5} - \boxed{0} = \boxed{6}$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	~~many~~	many correct	fair	~~efficient~~
4	practically all points	practically all	+ improvement suggestions	very good	all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	~~some~~	some aspects fine	some
2	~~some~~	some correct	~~good~~	~~reasonable~~
3	~~good~~	many correct	some aspects efficient	fair
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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:
+ asked about voltage controll
? vacuum case
+ noted lack of optimisation
– discarded geometry as parameter
+ noted lack of model

REVIEWER   Start from 1 and add/subtract

$1 + \boxed{1.5} + \boxed{3} + \boxed{2} + \boxed{1.5} \pm \boxed{1} - \boxed{0} = \boxed{10}$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	~~fully adequate~~	~~good~~

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	~~condensed & accurate~~	~~fully adequate~~	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
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	relevant parts	too many
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MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: + corona ≠ sparks ∴ report irrelevant
+ final optimal parameters
+ sparks are key
– short questions: quite long

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER

Start from 1 and add/subtract

1 + 4 + 0.5 - = 5

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
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DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
0.5	some	some aspects fine
1	many	good
2	+ data/theory convincingly supported	some aspects efficient
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ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS

0	concise and correct or no questions asked
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NOTES: Very good explanation → Q: Slide I_1, I_2, I_3 ?
$\cos\theta = \frac{2}{5} - \frac{g}{\Omega^2 R}$ Speed up
• Explained rising up of the balls very well and talks deeply, explained raising
$\cos\theta = \frac{2}{5} - \frac{g}{\Omega^2 R}$

• No explanation of acceleration of process.
• Slipping
• How does blowing effect the phenomenon

Q: Error bars Slide 13
Q: Slide 14 Freefall θ ? not g ...

OPPONENT

Start from 1 and add/subtract

1 + 1 + 1.5 + 1.5 - = 5

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

NOTES:

OPPOSITION (SPEECH)

Some irrelevant ... pointing to problem already in

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
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ANSWERS TO JURY and REVIEWER'S QUESTIONS

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NOTES (Opposition): Theory → No slip condition; Experiment → Angle? → Why inappropriate; No explanation on steady state ✓
• Error analysis
• Not too much details

• Prioritisation
• Asking irrelevant question
• Initial velocity
• Second angular velocity obtain
• Opponent do not understand points
• No prioritisation
• Bad angle

Q: Rep Opp which angle

REVIEWER

Start from 1 and add/subtract

1 + 1.5 + 1.5 + 1 + 1.5 ± 0.5 - = 7

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points
	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
	too short/long	some
1	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0.5	none
1	relevant, constructive

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 coordinates steady state Opp: 5 + restrictions 2 or 3 ?
Slide 9
→ Rolling without sliding, Rolling friction I_3
→ Friction / static friction
• Overview, Opinion?
• Irrelevant for rising
• Speak
• Spotting phase

• Do not pay attention to Jury question

Q:

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER

Start from 1 and add/subtract

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

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	(some)	(some)	(review of sources, cited)	partly	partly clear
2	fair ✗	(fair)	fair	(not well fitting)	some own input	(average)	average
3	good	(good)	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	(detailed demonstrative)	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	(overall clear, demonstrative)
6	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	+ complex concepts well communicated
7							

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
	some	some aspects fine
1	many ✗	(good)
2	(+ data/theory convincingly supported)	some aspects efficient
3	proved deep understanding	overall efficient

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: Unclear acknowledgement of reference (what was from paper and what was original?) Limited investigation of relevant parameters

OPPONENT

Start from 1 and add/subtract

$1 + 1\frac{1}{4} + 2\frac{1}{2} + 2 - 0 = 6\frac{1}{2}$ $6\frac{1}{4}$ (round down to **6**)

QUESTIONS ASKED

0	too few, mostly irrelevant
1 ✗	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	(some main points)	few	some	some	reasonable
2 ✗	(main points)	(some)	some correct	reasonable	(fair)
	all relevant points	(many)	(many correct)	(fair)	efficient
3			+ improvement suggestions	very good	+ all time used
4	practically all points	practically all			

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	(poor)	no
1	few	some	some aspects fine	some
2 ✗	some	some correct	good	reasonable
	(good)	(many correct)	some aspects efficient	(fair)
3	new crucial point(s)	+ improvement suggestions	overall efficient	very good
4				

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: No mention of math. model as either pro or con   Cutting reporter off a lot ▮

REVIEWER

Start from 1 and add/subtract

$1 + 1\frac{1}{4} + 1\frac{1}{2} + 1\frac{1}{4} + \frac{1}{2} \pm 0 - 0 = 5$ (5½ rounded down to 5)

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1 ✗	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	(partially relevant)	(some)
2 ✗	(good)	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1 ✗	too short/long	(partially relevant)	(some)
2	(informative, apt)	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	(too few)
	✗ too short/long	some
1	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0 ✗	none
1	relevant, constructive

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: Not stating own opinion. ▮ A lot of time spent summarising responses to questions not actual discussion. Time management a bit off.

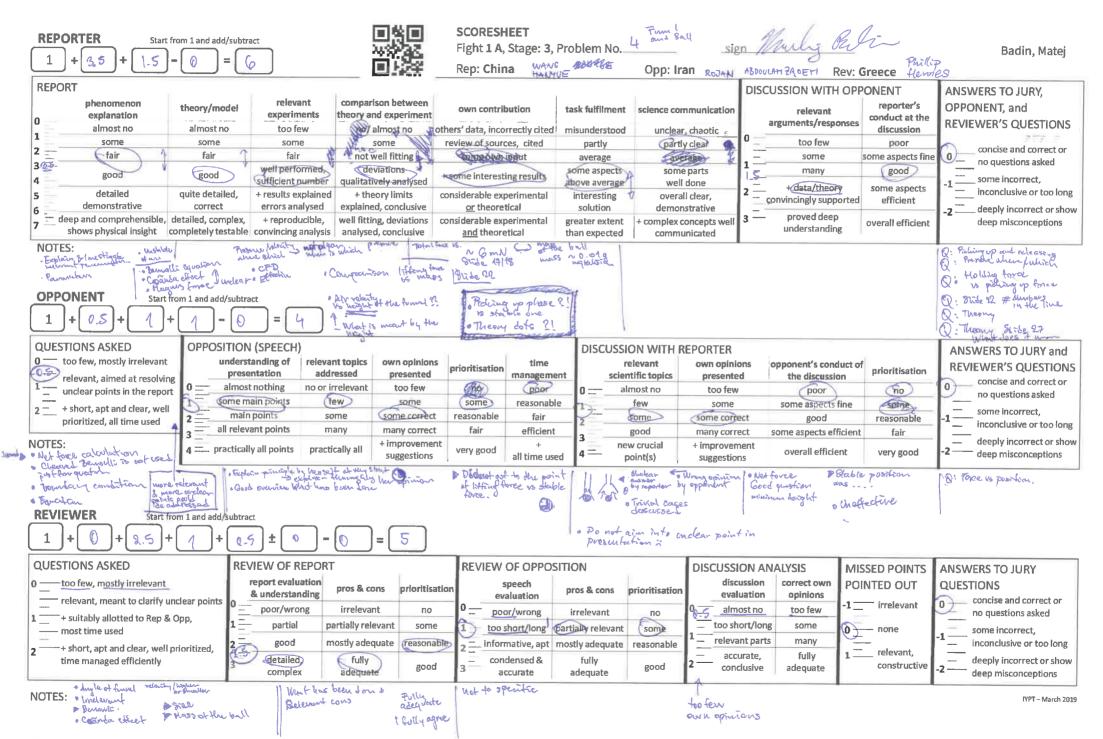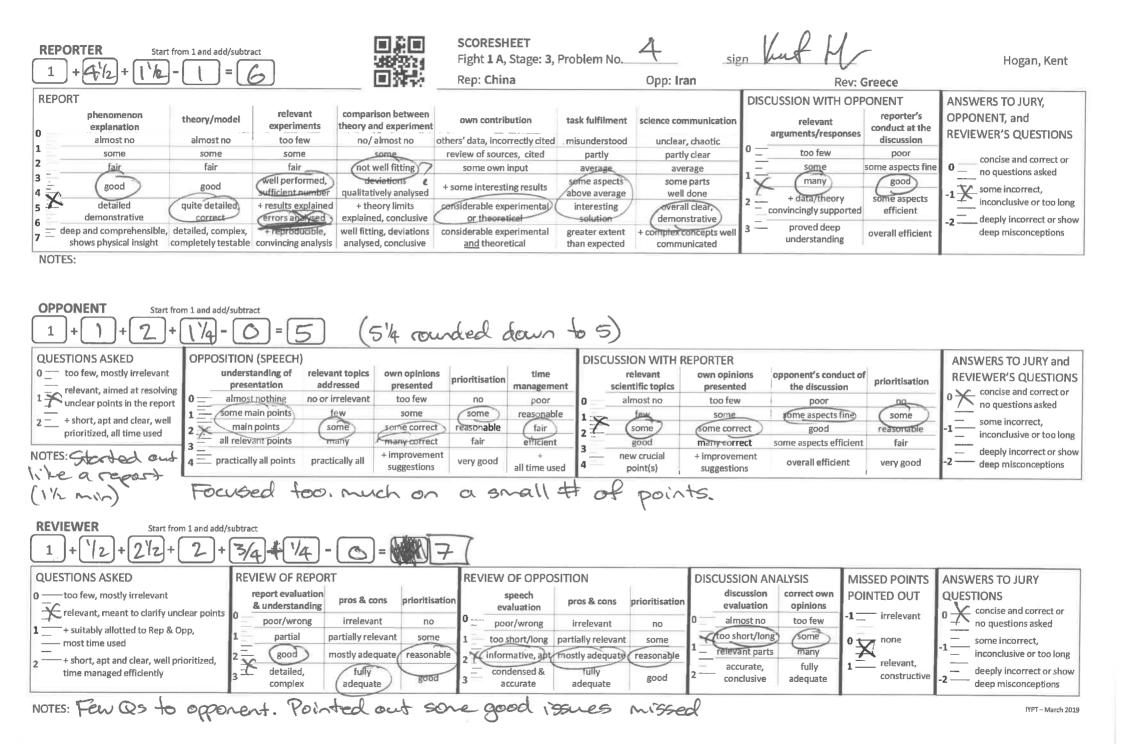Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER

Start from 1 and add/subtract

$1 + \boxed{2\cdot5} + \boxed{1\cdot5} - \boxed{\ } = \boxed{5}$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution ?	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	(some)	some	(some)	(some)	review of sources, cited	partly	partly clear
2	(fair)	fair	fair	not well fitting	some own input	(average)	(average)
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental _or_ theoretical	interesting solution	overall clear, demonstrative
6	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	+ complex concepts well communicated
7							

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	(some)	(some aspects fine)
	(many)	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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: Derivation of formula not given nor explained well. Some expt data, but lacking on a complete analysis of parameters & theoretical understanding.

OPPONENT

Start from 1 and add/subtract

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

QUESTIONS ASKED

0	too few, mostly irrelevant
(1)	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
(2)	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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: ~~[crossed out]~~ He understands the physics but communication is slightly lacking. Should allow reporter to complete his sentences, eg Emphasis on "hand" seems trivial.

REVIEWER

Start from 1 and add/subtract

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

QUESTIONS ASKED

0	too few, mostly irrelevant
(1)	relevant, meant to clarify unclear points
	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
(2)	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
(2)	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
(0)	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
(0)	none
1	relevant, constructive

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: Some own opinions contributed but appears minor. Understands problem ~~test~~ and asked some good questions ~~[crossed out]~~

Please, suitably adjust your grades taking into regard the [1,10] range.

Rep: Russia   Opp: **China**   Rev: **Iran**

REPORTER

Start from 1 and add/subtract

$1 + 2.5 + 1.5 - 0 = 5$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0							
	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1							
2	some	some	some	some	review of sources, cited	partly	partly clear
	fair	fair	fair	not well fitting	some own input	average	average
3							
4	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
	some	some aspects fine
1	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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

$1 + 1.0 + 2 + 1 - 0 = 5$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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

$1 + 1.5 + 1.5 + 1 + 1 \pm 0 - 0 = 6$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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:

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER   Start from 1 and add/subtract

1 + 2 + 1.5 − 0.5 = 4

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1							
2	some	some	some	some	review of sources, cited	partly	partly clear
	fair	fair	fair	not well fitting	some own input	average	average
3							
4	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
	some	some aspects fine
1	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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: + rolling/sliding friction   + convincing handwaves   − no deceleration explanation.
+ moments of forces   − no acceleration theory/explanation   − error investigation

OPPONENT 2 Start from 1 and add/subtract

1 + 0.5 + 0.25 + 1 − 1 = 3

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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: + relevant questions on mechanics   ⊧ felt the need to explain energy minimization.
− spent 6 minutes trying for a 'gotcha'   − 'what drag on presentation'

REVIEWER   Start from 1 and add/subtract

1 + 1.5 + 1.5 + 1.5 + 0.25 ± 0 − 1 = 5

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
	too short/long	some
1	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

−1	irrelevant
0	none
1	relevant, constructive

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: + friction static → lagrangian ok ? degrees of freedom
− fluid mechanics not mentioned!

Please, suitably adjust your grades taking into regard the [1,10] range

SCORESHEET

REPORTER Start from 1 and add/subtract
1 + [3.5] + [1.5] − [0] = [6]

Fight **1 A**, Stage: **3**, Problem No. **4** _Firm and Ball_

sign _[signature]_ Badin, Matej

Rep: **China** WANG HANYUE   Opp: **Iran** ROJAN ABDOULAHZAOETI   Rev: **Greece** Phillip Hennes

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no / almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3			well performed, sufficient number	deviations qualitatively analysed		some aspects above average	some parts well done
4	good	good			+ some interesting results		
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

NOTES: (handwritten annotations)

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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

Q: Picking up and releasing
Q: Pressure where/which
Q: Holding force
Q: Holding force vs picking up force
Q: Slide 22 # Numbers in the line
Q: Theory
Q: Theory Slide 27 What does it mean

OPPONENT Start from 1 and add/subtract
1 + [0.5] + [1] + [1] − [0] = [4]

QUESTIONS ASKED
0	too few, mostly irrelevant
[0.5]	relevant, aimed at resolving unclear points in the report
1	+ short, apt and clear, well prioritized, all time used
2	

NOTES: (handwritten)

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	any	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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

(handwritten notes)

REVIEWER Start from 1 and add/subtract
1 + [0] + [2.5] + [1] + [0.5] ± [0] − [0] = [5]

QUESTIONS ASKED
0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT
-1	irrelevant
0	none
1	relevant, constructive

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: (handwritten)

Please, suitably adjust your grades taking into regard the [1,10] range.

IYPT – March 2019

REPORTER

Start from 1 and add/subtract

$\boxed{1} + \boxed{4\frac{1}{2}} + \boxed{1\frac{1}{2}} - \boxed{1} = \boxed{6}$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	(not well fitting)	some own input	average	average
3	(good)	good	(well performed, sufficient number)	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4 ✗							
5	detailed demonstrative	(quite detailed correct)	+ results explained (errors analysed)	+ theory limits explained, conclusive	(considerable experimental or theoretical)	(interesting solution)	(overall clear, demonstrative)
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	(many)	(good)
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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

$\boxed{1} + \boxed{1} + \boxed{2} + \boxed{1\frac{1}{4}} - \boxed{0} = \boxed{5}$ (5¼ rounded down to 5)

QUESTIONS ASKED

0	too few, mostly irrelevant
1 ✗	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

NOTES: Started out like a report (1½ min)

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	(some main points)	few	some	(some)	reasonable
2 ✗	main points	(some)	some correct	reasonable	(fair)
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

Focused too much on a small # of points.

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1 ✗	few	some	some aspects fine	some
2	(some)	(some correct)	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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

$\boxed{1} + \boxed{\frac{1}{2}} + \boxed{2\frac{1}{2}} + \boxed{2} + \boxed{\frac{3}{4}} + \boxed{\frac{1}{4}} - \boxed{0} = \boxed{7}$

QUESTIONS ASKED

0	too few, mostly irrelevant
✗	relevant, meant to clarify unclear points
1	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2 ✗	(good)	mostly adequate	(reasonable)
3	detailed, complex	(fully adequate)	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2 ✗	(informative, apt)	(mostly adequate)	(reasonable)
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	(too short/long)	(some)
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0 ✗	none
1	relevant, constructive

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: Few Qs to opponent. Pointed out some good issues missed

Please, suitably adjust your grades taking into regard the [1,10] range.

SCORESHEET

Fight **1** A, Stage: **3**, Problem No. **4**   sign

Rep: **China**   Opp: **Iran**   Rev: **Greece**

Koh, Teck Seng

REPORTER

Start from 1 and add/subtract

$1 + \boxed{4.5} + \boxed{0.5} - \boxed{0} = \boxed{6}$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1							
2	some	some	some	some	review of sources, cited	partly	partly clear
	fair	fair	fair	not well fitting	some own input	average	average
3/4	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6/7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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: It was hard to understand what was numerical simulation and what was experimental data. I was not convinced about the results, because the calculations and expt conditions were not clearly explained. both expt & simulation

OPPONENT

Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{1.5} + \boxed{0.5} - \boxed{0} = \boxed{4}$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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: Should allow ~~opponent~~ reporter a chance to answer.

REVIEWER

Start from 1 and add/subtract

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

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points
	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: Lacks understanding of problem.

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER

Start from 1 and add/subtract

1 + **[45]** + **[1.5]** − **[0]** = **[7]**

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed, demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

(Circled: phenomenon "good"/"detailed demonstrative"; theory/model "good"; relevant experiments "+ results explained errors analysed"; comparison "+ theory limits explained, conclusive"; own contribution "+ some interesting results"; task fulfilment "interesting solution"; science communication "some parts well done")

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

(Circled: "many"; "good")

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]** + **[1.5]** + **[1]** − **[0]** = **[5]**

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

(Circled: "+ short, apt and clear, well prioritized, all time used")

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

(Circled: "main points"; "some"/"many"; "some correct"; "reasonable"; "fair")

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall efficient	very good

(Circled: "some"; "some correct"; "good"; "reasonable")

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

(Circled: 0)

NOTES:

REVIEWER

Start from 1 and add/subtract

1 + **[0.5]** + **[1]** + **[1]** + **[0.5]** ± **[ ]** − **[ ]** = **[4]**

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

(Circled: "+ suitably allotted to Rep & Opp")

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

(Circled: "partial"; "partially relevant"; "some")

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

(Circled: "too short/long"; "partially relevant"; "some")

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

(Circled: "too short/long"; "some")

MISSED POINTS POINTED OUT

−1	irrelevant
0	none
1	relevant, constructive

(Circled: "none")

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:

Please, suitably adjust your grades taking into regard the [1,10] range.

Funnel and Ball

Radost Waszkiewicz (sign)

REPORTER

1 + [6] + [15] - [2] = [6.5] → 6   Start from 1 and add/subtract

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed, demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
	some	some aspects fine
1	many	good
	+ data/theory convincingly supported	some aspects efficient
2		
3	proved deep understanding	overall efficient

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: + good looking simulation   ~ too few experiments in comparison to theory   — the larger the better
— little background in terms of assumptions.   — lack of physical conclusions: aspena + conclusions

OPPONENT

1 + [1] + [2] + [1] - [0] = [5]   Start from 1 and add/subtract

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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: + different regime of ⊥ instead of //   — very few topics.
+ initial ball position.   ? be very carefull with edge cases: often looks irrel.

REVIEWER

1 + [0.5] + [1] + [0.5] + [0.25] ± [0] - [0] = [3.25] → 3   Start from 1 and add/subtract

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: — asking the same question as opponent.

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER

Start from 1 and add/subtract

$1 + 3.5 + 1.5 - \boxed{\ } = \boxed{6}$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed	quite detailed correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6	demonstrative						
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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: *Investigate the phenomenon. Sweep the rod — Setup — Initial conditions — Is Light mass and ... mass? — Sliding — Stability — Assumptions — Capstan equations — Theory exp while until 0.4 — Nice explanation — Sliding friction — μ_E vs μ_p → how it was fitted unclear — Comparison of paths — Mass ratios — #14 Colors — Good analysis — Capstan equation $\leq$ vs $=$ — Q: Slide 14 — #14 Different conditions colors phase ting room — #16*

OPPONENT

Start from 1 and add/subtract

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

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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: *Discrepancy btw simulation & experiment — "How do they calculated" irrelevant questions — "Touch the bob — "Best fit line — Damping constant in spring WTF — 2? — Very general, not detailed — Irrelevant cons — #irrelevant — Stability of rod ⇔ theory 3! — Best fit line — Coils — X — Conservation of momentum — $\vec{R} = R\vec{e_R} + x\vec{e_\theta}$ — Correctly answered by reporter but also they are forces — Asking irrelevant question, clearly defined in slides — Filling up the time with hot air — Q: Delay time? Excitation? Nah — Q: Is momentum conserved or not? Would be conserved even without drag?*

REVIEWER

Start from 1 and add/subtract

$1 + 1.5 + 1.5 + 1 + 1.5 \pm \boxed{0} - \boxed{\ } = \boxed{7}$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
	too short/long	some
1	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: *Slide 7 slightly — Opp: Two dimensional problem? — Irrelevant points for slurring and dimensionality problem — Q: SD?*

Please, suitably adjust your grades taking into regard the [1,10] range.

21 → irrelevant or misunderstood point

SCORESHEET
Fight **1** A, Stage: **4**, Problem No. **14**   sign _[signature]_

Rep: **Iran**   Opp: **Greece**   Rev: **Russia**

Hogan, Kent

REPORTER

Start from 1 and add/subtract

1 + [4½] + [1½] - [0] = [7]

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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 + [½] + [1½] + [1] - [0] = [4]

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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 + [1½] + [2½] + [2] + [1½] ± [0] - [0] = [8]   (8½ rounded down to 8)

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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:

Please, suitably adjust your grades taking into regard the [1,10] range.

REPORTER

Start from 1 and add/subtract

$1 + \boxed{4} + \boxed{1} - \boxed{} = \boxed{6}$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few (circled)	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some (circled)	some (circled)	review of sources, cited	partly	partly clear
2	fair (circled)	fair (circled)	fair	not well fitting	some own input	average	average
3	good (circled)	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
	some	some aspects fine
1	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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: Mistakes in symbols, unclear theoretical derivation. Otherwise interesting results

OPPONENT

Start from 1 and add/subtract

$1 + \boxed{0.5} + \boxed{2.5} + \boxed{0} - \boxed{} = \boxed{4}$

QUESTIONS ASKED

0 (circled)	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor (circled)
1	some main points	few	some (circled)	some (circled)	reasonable
2	main points (circled)	some (circled)	some correct (circled)	reasonable	fair
3	all relevant points	many (circled)	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no (circled)	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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

$1 + \boxed{1.0} + \boxed{2} + \boxed{2.5} + \boxed{1.5} \pm \boxed{} - \boxed{} = \boxed{8}$

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1 (circled)	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good (circled)	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate (circled)	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive (circled)	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: Clearly understood physics of problem. Able to evaluate both presentation with priority & accuracy

Please, suitably adjust your grades taking into regard the [1,10] range.

SCORESHEET

Looping Pendulum

Fight **1** A, Stage: **4**, Problem No. **14**   sign _(signature)_   Pandey, Shashikant

Rep: **Iran**   Opp: **Greece**   Rev: **Russia**

REPORTER

Start from 1 and add/subtract

$1 + (3.5) + (1.5) - (0) = (6)$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6	demonstrative						
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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

$1 + (0.5) + (1.0) + (1.5) - (0) = (4)$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

NOTES:

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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

$1 + (1.5) + (2) + (2) + (1.5) \pm (0) - (0) = (8)$

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points + suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	informative, apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
	too short/long	some
1	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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:

Please, suitably adjust your grades taking into regard the [1,10] range.

IYPT – March 2019

Rep: **Iran**   Opp: **Greece**   Rev: **Russia**

REPORTER

Start from 1 and add/subtract

$1 + \boxed{5.5} + \boxed{1.5} - \boxed{0} = \boxed{8}$

REPORT

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic
1	some	some	some	some	review of sources, cited	partly	partly clear
2	fair	fair	fair	not well fitting	some own input	average	average
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done
4							
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
6							
7	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	+ complex concepts well communicated

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
	many	good
2	+ data/theory convincingly supported	some aspects efficient
3	proved deep understanding	overall efficient

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: + appropiate model
– only one rope
– no legends to symbols
– little qualitative conclusions
+ Resnick.

OPPONENT

Start from 1 and add/subtract

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

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, aimed at resolving unclear points in the report
2	+ short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)

	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	too few	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	all time used

DISCUSSION WITH REPORTER

	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	too few	poor	no
1	few	some	some aspects fine	some
2	some	some correct	good	reasonable
3	good	many correct	some aspects efficient	fair
4	new crucial point(s)	+ improvement suggestions	overall 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: – error analysis before physics.
– focused on a single phrase of reporter
– murky

REVIEWER

Start from 1 and add/subtract

$1 + \boxed{2} + \boxed{2.5} + \boxed{1.5} + \boxed{1} \pm \boxed{0.5} - \boxed{0} = \boxed{8.5} \rightarrow 9$

QUESTIONS ASKED

0	too few, mostly irrelevant
	relevant, meant to clarify unclear points
1	+ suitably allotted to Rep & Opp, most time used
2	+ short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT

	report evaluation & understanding	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	partial	partially relevant	some
2	good	mostly adequate	reasonable
3	detailed, complex	fully adequate	good

REVIEW OF OPPOSITION

	speech evaluation	pros & cons	prioritisation
0	poor/wrong	irrelevant	no
1	too short/long	partially relevant	some
2	information apt	mostly adequate	reasonable
3	condensed & accurate	fully adequate	good

DISCUSSION ANALYSIS

	discussion evaluation	correct own opinions
0	almost no	too few
1	too short/long	some
	relevant parts	many
2	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

-1	irrelevant
0	none
1	relevant, constructive

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: + relates to slides of reporter
+ asks both opp and rep

Please, suitably adjust your grades taking into regard the [1,10] range.