

REPORTER Start from 1 and add/subtract

1 + 5.5 + 1.5 - 0 = 8



SCORESHEET

Fight 5 G, Stage: 2, Problem No. 9

sign *HR*

Balcombe, John

Rep: Singapore

Opp: Brazil

Rev: Romania

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	science communication	relevant arguments/responses	reporter's conduct at the discussion		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	too few	poor	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	partly clear	some	some aspects fine		
2	fair	fair	fair	not well fitting	some own input	average	average	many	good	-1	some incorrect, inconclusive or too long
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	+ data/theory convincingly supported	some aspects efficient	-2	deeply incorrect or show deep misconceptions
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative				
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	+ complex concepts well communicated				
6											
7											

NOTES:

Did not change wavelength or concentration of soy sauce

not always convincing

OPPONENT Start from 1 and add/subtract

1 + 1.5 + 2.5 + 2.5 - 0 = 8

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	too few, mostly irrelevant	almost nothing	no or irrelevant	too few	no	poor	almost no	too few	poor	no	0
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	few	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	some	some correct	good	reasonable	-1
3		all relevant points	many	many correct	fair	efficient	good	many correct	some aspects efficient	fair	-2
4		practically all points	practically all	+ improvement suggestions	very good	all time used	new crucial point(s)	+ improvement suggestions	overall efficient	very good	-2

NOTES:

REVIEWER Start from 1 and add/subtract

1 + 0.5 + 2 + 2 + 1 - 1 - 0 = 6

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0	too few, mostly irrelevant	poor/wrong	irrelevant	no	poor/wrong	irrelevant	no	almost no	too few	1	0
1	relevant, meant to clarify unclear points	partial	partially relevant	some	too short/long	partially relevant	some	too short/long	some		
2	+ suitably allotted to Rep & Opp, most time used	good	mostly adequate	reasonable	informative, apt	mostly adequate	reasonable	relevant parts	many	0	-1
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	good	condensed & accurate	fully adequate	good	accurate, conclusive	fully adequate	1	-2

NOTES:

REPORTER

Start from 1 and add/subtract

$$1 + 6 + 2 - 0 = 9$$



SCORESHEET

Fight 5 G, Stage: 2, Problem No. 9

sign *E. Hertig*

Hertig, Emilie

Rep: Singapore

Opp: Brazil

Rev: Romania

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	science communication	relevant arguments/responses	reporter's conduct at the discussion	
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	partly clear	some	some aspects fine	
2	fair	fair	fair	not well fitting	some own input	average	average	many	good	-1 <input type="checkbox"/> some incorrect, inconclusive or too long
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	+ data/theory convincingly supported	some aspects efficient	
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative			-2 <input type="checkbox"/> 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	+ complex concepts well communicated	proved deep understanding	overall efficient	

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 + 2 - 0 = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	too few, mostly irrelevant	almost nothing	no or irrelevant	too few	no	poor	almost no	too few	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	few	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	some	some correct	good	reasonable	-1 <input type="checkbox"/> some incorrect, inconclusive or too long
3		all relevant points	many	many correct	fair	efficient	good	many correct	some aspects efficient	fair	
4		practically all points	practically all	+ improvement suggestions	very good	+ all time used	new crucial point(s)	+ improvement suggestions	overall efficient	very good	-2 <input type="checkbox"/> deeply incorrect or show deep misconceptions

NOTES:

REVIEWER

Start from 1 and add/subtract

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

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0	too few, mostly irrelevant	poor/wrong	irrelevant	no	poor/wrong	irrelevant	no	almost no	too few	-1 <input type="checkbox"/> irrelevant	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1	relevant, meant to clarify unclear points	partial	partially relevant	some	too short/long	partially relevant	some	too short/long	some	0 <input checked="" type="checkbox"/> none	
2	+ suitably allotted to Rep & Opp, most time used	good	mostly adequate	reasonable	informative, apt	mostly adequate	reasonable	relevant parts	many	1 <input type="checkbox"/> relevant, constructive	-1 <input type="checkbox"/> some incorrect, inconclusive or too long
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	good	condensed & accurate	fully adequate	good	accurate, conclusive	fully adequate	2 <input type="checkbox"/>	-2 <input type="checkbox"/> deeply incorrect or show deep misconceptions

NOTES:

REPORTER

Start from 1 and add/subtract

$$1 + 5.5 + 2.5 - 0 = 9$$



SCORESHEET

Fight 5 G, Stage: 2, Problem No. 9

sign *Lasser*

Lasser, Jana

Rep: Singapore

Opp: Brazil

Rev: Romania

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	science communication	relevant arguments/responses	reporter's conduct at the discussion	
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	too few	poor	0 <input type="radio"/> concise and correct or no questions asked 1 <input type="radio"/> some incorrect, inconclusive or too long -1 <input type="radio"/> some incorrect, inconclusive or too long -2 <input type="radio"/> deeply incorrect or show deep misconceptions
1	some	some	some	some	review of sources, cited	partly	partly clear	some	some aspects fine	
2	fair	fair	fair	not well fitting	some own input	average	average	many	good	
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	+ data/theory convincingly supported	some aspects efficient	
4										
5	detailed demonstrative	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	proved deep understanding	overall efficient	
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										

NOTES: missing: non-gaussian intensity profiles, limits of theory, varying thickness of sample
one plot with working list (could be better)

OPPONENT

Start from 1 and add/subtract

$$1 + 2 + 3 + 2 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	too few, mostly irrelevant	almost nothing	no or irrelevant	too few	no	poor	almost no	too few	poor	no	0 <input type="radio"/> concise and correct or no questions asked
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	few	some	some aspects fine	some	1 <input type="radio"/> some incorrect, inconclusive or too long
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	some	some correct	good	reasonable	2 <input type="radio"/> deeply incorrect or show deep misconceptions
3		all relevant points	many	many correct	fair	efficient	good	many correct	some aspects efficient	fair	
4		practically all points	practically all	+ improvement suggestions	very good	all time used	new crucial point(s)	+ improvement suggestions	overall efficient	very good	

NOTES:

wavelength of laser, sadly did not finish points on flow and blurry patterns in the middle, concentration of ray same

REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 1.25 + 1 + 0.5 + 0.25 - 0.5 = 4$$

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0	too few, mostly irrelevant	poor/wrong	irrelevant	no	poor/wrong	irrelevant	no	almost no	too few	-1 <input type="radio"/> irrelevant	0 <input type="radio"/> concise and correct or no questions asked
1	+ suitably allotted to Rep & Opp, most time used	partial	partially relevant	some	too short/long	partially relevant	some	too short/long	some	0 <input type="radio"/> none	1 <input type="radio"/> some incorrect, inconclusive or too long
2	+ short, apt and clear, well prioritized, time managed efficiently	good	mostly adequate	reasonable	informative, apt	mostly adequate	reasonable	relevant parts	many	1 <input type="radio"/> relevant, constructive	2 <input type="radio"/> deeply incorrect or show deep misconceptions
3		detailed, complex	fully adequate	good	condensed & accurate	fully adequate	good	accurate, conclusive	fully adequate		

NOTES: why use ray same! (6, 6, 4, 5, 7)

$$\boxed{1} + \boxed{45} + \boxed{2} - \boxed{0} = \boxed{8}$$


Fight 5 G, Stage: 2, Problem No.

Opp: Brazil

Rev: Romania

Liasneuski, Heorhi

	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	detailed	quite detailed	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
5	demonstrative	correct	errors analysed				
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

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

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

NOTES: (no correction) du/dt $\propto \frac{1}{\lambda}$ Huygen's Principle
say same horizontal $\frac{du}{dt} \propto \frac{1}{\lambda}$ Gaussian beam
kinds $\frac{du}{dt} \propto \frac{1}{\lambda}$ larger gradient in λ - extra dist
beam width shifts

OPPONENT

Start from 1 and add/subtract

1 + 1 + 2 + 2 - 0 = 6

knife edge
Beer-Lambert law
Heed eq.
pinhole size?

control appog
relative intensity $\propto \frac{1}{\lambda^2}$
for what?

interfere
qualitative
bad

intensity from the video +/-

why 200 nm limits

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

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

	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

	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

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

NOTES:

Thermal expansion? → difficult to check
 liquid, G? → Δ assumptions
 diffraction source

REVIEWER

Start from 1 and add/subtract

1

+

1

+

1

+

1

+

0.75

±

0

-

0

=

5

Exp: \pm setup
 \pm beam measurement
 \pm mirror change optical path ≈ 0

4	practically all points	practically all	+ improvement suggestions	very good	+ all time used
---	------------------------	-----------------	---------------------------	-----------	-----------------

4	new crucial point(s)	+ improvement suggestions	overall efficient	very good	-2
---	----------------------	---------------------------	-------------------	-----------	----

deeply incorrect or sh
deep misconceptions

Handwritten notes on right:

- discarded absorption (?)
- Thermal expansion
- no assumptions (and why?)
- finite sample boundary cond.
- mirrors blurred due to flow?
- fluid flows
- changing of absorption complex
- is the same as tetration index
- mirrors? → characterize with mirrors
- change concentration? → no
- Summary:

$$\boxed{1} + \boxed{1} + \boxed{1} + \boxed{1} + \boxed{0.75} \pm \boxed{0} - \boxed{0} = \boxed{5}$$

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

	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

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

POINTED OUT

-1 _____ irrelevant

0 _____ none

1 _____ relevant,
constructive

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

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

Th:
+ comp
+ model
+ exp)

Exp:
- few experience
- limits
- vary thickness
- beam with

Opinion:
common words

Opp:
+ diff. persons
- mostly focus on theory
-

Disc:
- boundary - well controlled
- mirrors - should be taken
- please change a-o

no

REPORTER

Start from 1 and add/subtract

$$1 + 2 + 1 - 1 = 3$$



SCORESHEET

Fight 5 G, Stage: 2, Problem No. 9

Rep: Singapore

Opp: Brazil

Rev: Romania

Waszkiewicz, Radost

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	detailed, demonstrative	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
5	deep and comprehensive, 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
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: + complex model with many effects. linked.
— fails to mention normalisation for fts.

OPPONENT

Start from 1 and add/subtract

$$1 + 2 + 3 + 3 - 0.5 = 8.5 \rightarrow 8$$

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 points	+ 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:

+ absorption is key — finite sample size — mirrors.

REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 1.5 + 1.5 + 2 - 0 - 0 = 7$$

QUESTIONS ASKED

- 0 — too few, mostly irrelevant
- 1 — relevant, meant to clarify unclear points
- 2 — + suitably allotted to Rep & Opp, most time used
- 3 — + 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
2	relevant parts	many
3	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: — mirrors

REPORTER

Start from 1 and add/subtract

$$1 + 3 + 1 - 0 = 5$$



SCORESHEET

Fight 5 G, Stage: 3, Problem No. 12 (Gyroscope Testmate)

sign

Rep: Brazil

Opp: Romania

Rev: Singapore

Liasneuski, Heorhi

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	detailed	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative
5	demonstrative	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated
6	deep and comprehensible, shows physical insight						
7							

DISCUSSION WITH OPPONENT

	relevant arguments/responses	reporter's conduct at the discussion
0	too few	poor
1	some	some aspects fine
2	many	good
3	+ data/theory convincingly supported	some aspects efficient
4	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:

$\vec{v} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t} \psi?$ $\vec{B} = \vec{B}_{ext} + \vec{B}_y$ \vec{B}_y affect J or $B?$ $M(V; B)?$
 $\vec{v} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$ $\vec{B} = \vec{B}_{ext} + \vec{B}_y$ \vec{B}_y affect J or $B?$ $M(V; B)?$
 $\vec{v} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$ $\vec{B} = \vec{B}_{ext} + \vec{B}_y$ \vec{B}_y affect J or $B?$ $M(V; B)?$
 $\vec{v} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$ $\vec{B} = \vec{B}_{ext} + \vec{B}_y$ \vec{B}_y affect J or $B?$ $M(V; B)?$

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:

Amperes law? \rightarrow calc
 $\vec{v} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$ \rightarrow consol
 $\vec{v} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$ \rightarrow speed, camera

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

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

QUESTIONS ASKED

0	too few, mostly irrelevant
1	relevant, meant to clarify unclear points
2	+ suitably allotted to Rep & Opp, most time used
3	+ 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
2	relevant parts	many
3	accurate, conclusive	fully adequate

MISSED POINTS POINTED OUT

0	irrelevant
1	none
2	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:

\rightarrow Rep: wobbling dumps? \rightarrow \rightarrow Rep: \rightarrow integrating \rightarrow poor experimental control \rightarrow measurement of B
 \rightarrow Rep: \rightarrow consol \rightarrow another mathematical, no same eq., but just show
 \rightarrow Rep: \rightarrow params $\rightarrow B$, dist (magnet - surf)
 \rightarrow Rep: \rightarrow one degree, analytical solution \rightarrow
 \rightarrow Rep: \rightarrow literature

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

Rep: \rightarrow unclear qual, quan.
 \rightarrow gyroscope

Opp: \rightarrow theory
 \rightarrow params
 \rightarrow failed to Tesla meter
 \rightarrow think the other machine

Dis: \rightarrow limited exp. scope
 \rightarrow missed: \rightarrow direction
 \rightarrow more degrees

REPORTER

Start from 1 and add/subtract

$$1 + 3.5 + 1 - 1 = 4.5 \rightarrow 4$$



SCORESHEET

Fight 5 G, Stage: 3, Problem No. 12

Rep: Brazil

Opp: Romania

Rev: Singapore

Waszkiewicz, Radost

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	science communication	relevant arguments/responses	reporter's conduct at the discussion
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	too few	poor
1	some	some	some	some	review of sources, cited	partly	partly clear	some	some aspects fine
2	fair	fair	fair	not well fitting	some own input	average	average	many	good
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	+ data/theory convincingly supported	some aspects efficient
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	proved deep understanding	overall efficient
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	+ complex concepts well communicated		

NOTES:

- little experimental verification
- vary magnets position / orientation.

- no dependence on angular velocity in theory. (eqns).

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 1.5 + 1 - 0 = 4.5 \rightarrow 4$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	too few, mostly irrelevant	almost nothing	no or irrelevant	too few	no	poor	almost no	too few	poor	no	concise and correct or no questions asked
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	few	some	some aspects fine	some	some incorrect, inconclusive or too long
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	some	some correct	good	reasonable	deeply incorrect or show deep misconceptions
3		all relevant points	many	many correct	fair	efficient	good	many correct	some aspects efficient	fair	
4		practically all points	practically all	+ improvement suggestions	very good	+ all time used	new crucial point(s)	+ improvement suggestions	overall efficient	very good	

NOTES:

- irrelevant: spin-up, tracking, error bars.

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 3 + 3 + 1.5 + 0.5 - 0 = 10$$

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0	too few, mostly irrelevant	poor/wrong	irrelevant	no	poor/wrong	irrelevant	no	almost no	too few	1 irrelevant	concise and correct or no questions asked
1	relevant, meant to clarify unclear points	partial	partially relevant	some	too short/long	partially relevant	some	too short/long	some	0 none	some incorrect, inconclusive or too long
2	+ suitably allotted to Rep & Opp, most time used	good	mostly adequate	reasonable	informative, apt	mostly adequate	reasonable	relevant parts	many	1 relevant, constructive	deeply incorrect or show deep misconceptions
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	good	condensed & accurate	fully adequate	good	accurate, conclusive	fully adequate		

NOTES:

+ rotating axis,
+ team work.

+ states appinions
+ on presentation

+ clarifies equations
of reporter.

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

REPORTER

Start from 1 and add/subtract

$$1 + 6.25 + 2.25 - 0 = 8.5$$



SCORESHEET

Fight 5 G, Stage: 3, Problem No. 12

sign *S. Lasser*

Lasser, Jana

Rep: Brazil

Opp: Romania

Rev: Singapore

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	science communication	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	0 — too few	poor	<input checked="" type="radio"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	partly clear	— some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	average	1 — many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	2 — + data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	3 — proved deep understanding	overall efficient	
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	+ complex concepts well communicated			

NOTES: *very complex but did his best*

missing parameters: more materials, disk with magnet strength, distance of magnet to disk

initial spinning, considered but not mentioned again

*! dominant moment of inertia experimentally
Very good defense against suggestion of ~~continuing~~ using different magnets*

OPPONENT

Start from 1 and add/subtract

$$1 + 2 + 2.5 + 2.5 - 0 = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — too few, mostly irrelevant		almost nothing	no or irrelevant	too few	no	poor	0 — almost no	too few	poor	no	<input checked="" type="radio"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		some main points	few	some	some	reasonable	1 — few	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		main points	some	some correct	reasonable	fair	2 — some	some correct	good	reasonable	
		all relevant points	many	many correct	fair	efficient	3 — good	many correct	some aspects efficient	fair	
		practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	+ improvement suggestions	overall efficient	very good	

NOTES: *could be a tiny bit more on exp*

a bit imprecise

from missing exp. most crucial point

impact of "returning" field

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 1.5 + 2 + 1 + 0.25 - 0 = 7.75$$

*camera 240 fps, about 2 sec data collection
70 rad per sec*

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0 — too few, mostly irrelevant		poor/wrong	irrelevant	no	0 — poor/wrong	irrelevant	no	0 — almost no	too few	-1 — irrelevant	<input checked="" type="radio"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — + suitably allotted to Rep & Opp, most time used		partial	partially relevant	some	1 — too short/long	partially relevant	some	1 — too short/long	some	0 — none	
2 — + short, apt and clear, well prioritized, time managed efficiently		good	mostly adequate	reasonable	2 — informative, apt	mostly adequate	reasonable	1 — relevant parts	many	1 — relevant, constructive	
		detailed, complex	fully adequate	good	3 — condensed & accurate	fully adequate	good	2 — accurate, conclusive	fully adequate		

NOTES: *a bit shallow on pro's*

*Of course! It's called friction ... did not pick up on shaking disk: not really relevant
parameter variation*

REPORTER

Start from 1 and add/subtract

$$1 + 4.5 + 1.5 - 0 = 7$$



SCORESHEET

Fight 5 G, Stage: 3, Problem No.

12

sign *ALB*

Balcombe, John

Rep: Brazil

Opp: Romania

Rev: Singapore

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	science communication	relevant arguments/responses	reporter's conduct at the discussion		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	too few	poor	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	partly clear	some	some aspects fine		
2	fair	fair	fair	not well fitting	some own input	average	average	many	good		
3	good	good	well-performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	+ data/theory convincingly supported	some aspects efficient	-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	interesting solution	overall clear, demonstrative			-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	+ complex concepts well communicated	proved deep understanding	overall efficient		
6											
7											

NOTES:

OPPONENT

Start from 1 and add/subtract

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

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	too few, mostly irrelevant	almost nothing	no or irrelevant	too few	no	poor	almost no	too few	poor	no	0 — concise and correct or no questions asked
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	few	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	some	some correct	good	reasonable	-1 — some incorrect, inconclusive or too long
3		all relevant points	many	many correct	fair	efficient	good	many correct	some aspects efficient	fair	
4		practically all points	practically all	+ improvement suggestions	very good	+ all time used	new crucial point(s)	+ improvement suggestions	overall efficient	very good	-2 — deeply incorrect or show deep misconceptions

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 2 + 2 + 1 + 10.5 - 0 = 17$$

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0	too few, mostly irrelevant	poor/wrong	irrelevant	no	poor/wrong	irrelevant	no	almost no	too few	-1 — irrelevant	0 — concise and correct or no questions asked
1	relevant, meant to clarify unclear points	partial	partially relevant	some	too short/long	partially relevant	some	too short/long	some		
2	+ suitably allotted to Rep & Opp, most time used	good	mostly adequate	reasonable	informative, apt	mostly adequate	reasonable	relevant parts	many	0 — none	-1 — some incorrect, inconclusive or too long
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	good	condensed & accurate	fully adequate	good	accurate, conclusive	fully adequate		

NOTES:

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 1.5 - 0 = 7$$



SCORESHEET

Fight 5 G, Stage: 3, Problem No. 12

sign E. Hertig

Hertig, Emilie

Rep: Brazil

Opp: Romania

Rev: Singapore

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	science communication	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	0 — too few	poor	0 — <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	partly clear	— some	<input checked="" type="checkbox"/> some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	average	— many	good	
3 — <input checked="" type="checkbox"/> good	good	<input checked="" type="checkbox"/> well performed, sufficient number	<input checked="" type="checkbox"/> deviations qualitatively analysed	+ some interesting results	<input checked="" type="checkbox"/> some aspects above average	<input checked="" type="checkbox"/> some parts well done	2 — <input checked="" type="checkbox"/> + data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	<input checked="" type="checkbox"/> quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	<input checked="" type="checkbox"/> considerable experimental or theoretical	<input checked="" type="checkbox"/> interesting solution	overall clear, demonstrative	3 — proved deep understanding	overall efficient	
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	+ complex concepts well communicated			

NOTES:

OPPONENT

Start from 1 and add/subtract

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

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — too few, mostly irrelevant		0 — almost nothing	no or irrelevant	too few	no	poor	0 — almost no	too few	poor	no	0 — <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — <input checked="" type="checkbox"/> relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — few	some	<input checked="" type="checkbox"/> some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — <input checked="" type="checkbox"/> main points	<input checked="" type="checkbox"/> some	<input checked="" type="checkbox"/> some correct	reasonable	<input checked="" type="checkbox"/> fair	2 — some	<input checked="" type="checkbox"/> some correct	good	<input checked="" type="checkbox"/> reasonable	
		3 — all relevant points	many	many correct	<input checked="" type="checkbox"/> fair	efficient	3 — <input checked="" type="checkbox"/> good	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 2.25 + 2 + 1.5 + 0.5 - 0 = 8$$

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0 — too few, mostly irrelevant		0 — poor/wrong	irrelevant	no	0 — poor/wrong	irrelevant	no	0 — almost no	too few	-1 — irrelevant	0 — <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — <input checked="" type="checkbox"/> + suitably allotted to Rep & Opp, most time used		1 — partial	partially relevant	some	1 — too short/long	partially relevant	some	1 — too short/long	some	0 — none	
2 — + short, apt and clear, well prioritized, time managed efficiently		2 — <input checked="" type="checkbox"/> good	<input checked="" type="checkbox"/> mostly adequate	reasonable	2 — <input checked="" type="checkbox"/> informative, apt	<input checked="" type="checkbox"/> mostly adequate	<input checked="" type="checkbox"/> reasonable	2 — <input checked="" type="checkbox"/> relevant parts	<input checked="" type="checkbox"/> many	<input checked="" type="checkbox"/> relevant, constructive	
		3 — detailed, complex	fully adequate	good	3 — condensed & accurate	fully adequate	good	— accurate, conclusive	<input checked="" type="checkbox"/> fully adequate		

NOTES:

$$1 + 1.5 + 1.5 - 0.5 = 4$$


Fight 5 G, Stage: 1, Problem No.

Opp: Singapore

sign HR

Balcombe, John

	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							
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

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

0 — concise and correct or
no questions asked

-1 — some incorrect,
inconclusive or too long

-2 — deeply incorrect or show
deep misconceptions

NOTES:

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

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

	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

	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

0 — concise and correct or
no questions asked

—

-1 — some incorrect,
inconclusive or too long

—

-2 — deeply incorrect or show
deep misconceptions

NOTES:

$$1 + \cancel{2} + \cancel{2} + \cancel{25} + \cancel{175} \pm 0.5 - 0 = 8$$

- 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

	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

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

-1 _____ irrelevant
0 _____ none
1 _____ relevant,
constructive

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

NOTES:

REPORTER

Start from 1 and add/subtract

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



SCORESHEET

Fight 5 G, Stage: 1, Problem No. 15

sign E. Hertig

Hertig, Emilie

Rep: Romania

Opp: Singapore

Rev: Brazil

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	science communication	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	<input checked="" type="checkbox"/> almost no	too few	<input checked="" type="checkbox"/> no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	0 — too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1 — some	<input checked="" type="checkbox"/> some	some	<input checked="" type="checkbox"/> some	review of sources, cited	<input checked="" type="checkbox"/> partly	partly clear	1 — <input checked="" type="checkbox"/> some	<input checked="" type="checkbox"/> some aspects fine	— some incorrect, inconclusive or too long
2 — <input checked="" type="checkbox"/> fair	fair	<input checked="" type="checkbox"/> fair	not well fitting	<input checked="" type="checkbox"/> some own input	average	<input checked="" type="checkbox"/> average	— many	good	— deeply incorrect or show deep misconceptions
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	2 — + data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	3 — proved deep understanding	overall efficient	
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	+ complex concepts well communicated			

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 3 + 3 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER				ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — too few, mostly irrelevant		0 — almost nothing	no or irrelevant	too few	no	poor	0 — almost no	too few	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1 <input checked="" type="checkbox"/> relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — few	some	some aspects fine	some	— some incorrect, inconclusive or too long
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — some	some correct	good	reasonable	— deeply incorrect or show deep misconceptions
		3 <input checked="" type="checkbox"/> all relevant points	<input checked="" type="checkbox"/> many	<input checked="" type="checkbox"/> many correct	<input checked="" type="checkbox"/> fair	efficient	3 — good	many correct	<input checked="" type="checkbox"/> some aspects efficient	<input checked="" type="checkbox"/> fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	<input checked="" type="checkbox"/> + all time used	4 <input checked="" type="checkbox"/> new crucial point(s)	<input checked="" type="checkbox"/> + improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 + 1.5 + 1 \pm 0.5 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT			REVIEW OF OPPOSITION			DISCUSSION ANALYSIS		MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
		report evaluation & understanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions		
0 — too few, mostly irrelevant		0 — poor/wrong	irrelevant	no	0 — poor/wrong	irrelevant	no	0 — almost no	too few	-1 — irrelevant	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1 — relevant, meant to clarify unclear points		1 — partial	<input checked="" type="checkbox"/> partially relevant	some	1 — too short/long	partially relevant	some	1 — too short/long	some	0 — none	— some incorrect, inconclusive or too long
2 <input checked="" type="checkbox"/> + suitably allotted to Rep & Opp, most time used		2 — good	mostly adequate	<input checked="" type="checkbox"/> reasonable	2 <input checked="" type="checkbox"/> informative, apt	mostly adequate	<input checked="" type="checkbox"/> reasonable	2 <input checked="" type="checkbox"/> relevant parts	many	1 <input checked="" type="checkbox"/> relevant, constructive	— deeply incorrect or show deep misconceptions
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	good	3 — condensed & accurate	fully adequate	good	— accurate, conclusive	fully adequate		

NOTES:

REPORTER

Start from 1 and add/subtract

$$1 + 1 + 1 - 0.5 = 3$$



SCORESHEET

Fight 5 G, Stage: 1, Problem No. 15

sign *S. Lasser*

Lasser, Jana

Rep: Romania

Opp: Singapore

Rev: Brazil

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	DISCUSSION WITH OPPONENT	ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	relevant arguments/responses	reporter's conduct at the discussion
1	some	some	some	some	review of sources, cited	partly	partly clear	too few	poor
2	fair	fair	fair	not well fitting	some own input	average	average	some	some aspects fine
3								many	good
4	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	+ data/theory convincingly supported	some aspects efficient
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	proved deep understanding	overall efficient
7									

NOTES: *values: nice drop at home not very forces? energy? clear*
very little, deviations not explained

*no material change
no alignment change*

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 3 + 3 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
0	too few, mostly irrelevant	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	0	concise and correct or no questions asked		
1	relevant, aimed at resolving unclear points in the report	0	almost nothing	no or irrelevant	too few	no	poor	1	few	some	some aspects fine	some	1	some incorrect, inconclusive or too long
2	+ short, apt and clear, well prioritized, all time used	1	some main points	few	some	reasonable	2	some	some correct	good	reasonable	2	2	deeply incorrect or show deep misconceptions
		2	main points	some	some correct	reasonable	3	good	many correct	some aspects efficient	fair	3	3	
		3	all relevant points	many	many correct	fair	4	new crucial point(s)	+ improvement suggestions	overall efficient	very good	4	4	
		4	practically all points	practically all	+ improvement suggestions	very good								
NOTES:														

NOTES:

Alignment? → by eye
suggestion: alignment by holes in wooden plate
+ discussion of parallax

main criticism: could have discussed theory a bit more
very good points about exp., also always own suggestions
could have discussed deviations between pred. and exp.

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 2 + 2 + 1.5 - 0.5 = 8$$

QUESTIONS ASKED	REVIEW OF REPORT	REVIEW OF OPPOSITION	DISCUSSION ANALYSIS	MISSED POINTS POINTED OUT	ANSWERS TO JURY QUESTIONS
0 — too few, mostly irrelevant	report evaluation & understanding	speech evaluation	discussion evaluation	correct own opinions	0 — concise and correct or no questions asked
1 — relevant, meant to clarify unclear points	poor/wrong	irrelevant	no	1 — irrelevant	1 — some incorrect, inconclusive or too long
2 — + suitably allotted to Rep & Opp, most time used	partial	partially relevant	some	0 — none	2 — deeply incorrect or show deep misconceptions
3 — + short, apt and clear, well prioritized, time managed efficiently	good	mostly adequate	reasonable	1 — relevant, constructive	
	detailed, complex	fully adequate	good		

NOTES: *sources of dissipation*
assumptions of model

(8, 7, 8, 5, 5)

cleared up point about air drag

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


Fight 5 G, Stage: 1, Problem No.

Rep: Romania

Opp: Singapore

Rev: Brazil

Liasneuski, Heorhi

	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 text
3				deviations			quite inconsistent
4	good	good	well performed, sufficient number	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	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

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

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

λ damping ratio
 for what?

OPPONENT

Start from 1 and add/subtract

1 + 1 + 2 + 2 - 0 = 6

alignments

OPPONENT

Start from 1 and add/subtract

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

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

	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

	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

0 — concise and correct or
no questions asked

-1 — some incorrect,
inconclusive or too long

-2 — deeply incorrect or show
deep misconceptions

significant? \rightarrow yes \rightarrow but not \rightarrow
 same length
 momentum conserved? \rightarrow yes
 how many pcs? \rightarrow ~ 25

error bars? \rightarrow std
 about \sqrt{p}

REVIEWER

Start from 1 and add/subtract

REVIEWER

Start from 1 and add/subtract

$$\boxed{1} + \boxed{1} + \boxed{15} + \boxed{15} + \boxed{1} \pm \boxed{-0.5} - \boxed{0} = \boxed{5}$$

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

	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

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

POINTED OUT

-1 irrelevant

0 none

1 relevant, constructive

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

NOTES:

Main param. $\rightarrow N_{col}, H \rightarrow$
 0: $\sim \pi \rightarrow$ Align, angle
 p: assumption \rightarrow not perfectly elastic
 Please, suitably adjust your grades taking into regard the [1,10] range.

Rep:	Opp:
<ul style="list-style-type: none"> - precise results - missed physics (drag prop) - no qualitative 	<ul style="list-style-type: none"> - great use of time - drag force (main o-o) - suggest

→ physical effect of misaligned air drag 2nd phone 0 - 0
inertia moment calculation → should use parallel?

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


Fight 5 G, Stage: 1, Problem No. 19

Opp: Singapore

Waszkiewicz, Radost

	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							
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 <u>or</u> 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 <u>and</u> theoretical	greater extent than expected	+ complex concepts well communicated

	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

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

NOTES: - very little predictive power of model.
- difficult to engage with in discussion.

OPPONENT Start from 1 and add/subtract

$$1 + 1 + 2.5 + 1.5 - 0.5 = 5.5 \rightarrow 5$$

0 ___ too few, mostly irrelevant
1 ___ ~~4~~ relevant, aimed at resolving
unclear points in the report
2 ___ + short, apt and clear, well
prioritized, all time used

	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

	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

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

NOTES:

- states own solution instead of relating to report
+ brought up missing points.

REVIEWER Start from 1 and add/subtract

- fails to conduct discussion

$$\boxed{1} + \boxed{1} + \boxed{1} + \boxed{1} + \boxed{0.5} \pm \boxed{0} - \boxed{0} = \boxed{4.5} \rightarrow 5$$

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

	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

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

-1 _____ irrelevant
0 _____ none
1 _____ relevant,
constructive

0 ☒ concise and correct or
no questions asked

-1 ☐ some incorrect,
inconclusive or too long

-2 ☐ deeply incorrect or show
deep misconceptions

NOTES: - fairly generic questions + asks about dissipation.
+ asks both rep/op.