SCORESHEET Plesch. Martin REPORTER Start from 1 and add/subtract Stage: 1 Fight 2 Z, Problem: 10 MUCHA Germany Rosenheim: KIRCH & OF Poland: **Gymnasium Freistadt: DISCUSSION WITH OPPONENT** REPORT ANSWERS TO JURY, relevant comparison between phenomenon reporter's OPPONENT, and theory/model own contribution task fulfilment science communication relevant experiments theory and experiment explanation conduct at the arguments/responses REVIEWER'S QUESTIONS discussion almost no too few /d/ almost no others' data, incorrectly cited misunderstood unclear, chaotic almost no too few one review of sources, cited some some some partly clear concise and correct or some aspects fine aferage not well fitting some own input average fair no questions asked well performed. deviations some aspects some parts many + some interesting results good good some incorrect, sufficient number qualitatively analysed above average well done + data/theory some aspects inconclusive or too long depailed demonstrative quite detailed, + results explained + theory limits considerable experimental interesting overall clear, convincingly supported efficient errors analysed deeply incorrect or show correct explained, conclusive or theoretical solution demonstrative proved deep deep misconceptions deep and comprehensible, detailed, complex, + reproducible, well fitting, deviations considerable experimental greater extent + complex concepts well overall efficient understanding shows physical insight completely testable convincing analysis analysed, conclusive and theoretical than expected communicated NOTES: **OPPONENT** Start from 1 and add/subtract **OPPOSITION (SPEECH) QUESTIONS ASKED DISCUSSION WITH REPORTER** ANSWERS TO JURY and too few, mostly irrelevant understanding of relevant topics own opinions time relevant own opinions opponent's conduct of REVIEWER'S QUESTIONS prioritisation prioritisation presentation addressed presented management scientific topics presented the discussion relevant, aimed at resolving concise and correct or ng or irrelevant some almost nothing (oo few almostmo too few poor no unclear points in the report no questions asked reasonable some main points few few some some some aspects fine + short, apt and clear, well some incorrect. main points reasonable some correct some some correct fair good reasonable prioritized, all time used inconclusive or too long all relevant points

REVIEWER Start from 1 and add/s 1 + Q25 + 2 + + +	ubtract ±	+ 095	- = =	4									
QUESTIONS ASKED	REVIEW	OF REPOR	RT		REV	IEW OF OPPO	SITION		DIS	CUSSION ANA	ALYSIS	MISSED POINTS	ANSWERS TO JURY
0 —— too few, mostly irrelevant	& unc	t evaluation derstanding	pros & cons	prioritisation		speech evaluation	pros & cons	prioritisation		discussion evaluation	correct own opinions	POINTED OUT	QUESTIONS concise and correct or
relevant, meant to clarify unclear points	0 poo	or/wrong	irrelevant	(no)	0/	poor/wrong	irrelevant	no	0	almost no	too few	-1 irrelevant	no questions asked
+ suitably allotted to Rep & Opp, most time used	1	partial	partially relevant	some	1	too short/long	partially relevant	some		too short/long	some	none	some incorrect,
+ short, apt and clear, well prioritized.	20	good	mostly adequate	reasonable	2	informative, apt	mostly adequate	reasonable	1-	relevant parts	many	V-	inconclusive or too long
time managed efficiently	3 de	etailed, omplex	sully) adequate	good	3	condensed & accurate	fully adequate	good	2	accurate, conclusive	fully adequate	relevant, constructive	-2 deeply incorrect or show deep misconceptions

efficient

all time used

good

new crucial

point(s)

many correct

+ improvement

suggestions

some aspects efficient

overall efficient

fair

very good

fair

very good

many correct

+ improvement

suggestions

many

practically all

practically all points

1 . 1: . .

NOTES:

NOTES:

deeply incorrect or show

deep misconceptions

Start from 1 and add/subtrac	t
3+1-0-5=6)
-	Start from 1 and add/subtract



SCORESHEET

Stage: 1 Fight 2 Z, Problem:

Poland: New.

Gymnasium Freistadt: OP.

Germany Rosenheim: New.

ORT							DISCUSSION WITH OPE	ONENT	ANSWERS TO JURY,
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	OPPONENT, and REVIEWER'S QUESTION
almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/responses	discussion	REVIEWER'S QUESTION
some	some	some	some X	review of sources, cited	partly	partly clear	too few	poor	concise and correct of
fair	fair X	fair	not well fitting '	some own input	average	average	- some	some aspects fine	no questions asked
good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good some aspects	some incorrect,
detailed X	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental	interesting ×	overall clear, X	convincingly supported	efficient	inconclusive or too l
deep and comprehensible shows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 — proved deep understanding	overall efficient	deep misconception

of your know to ke real results! makerials shapes:

OPPONENT Start from 1 and add/subtract or at least on estimation lent has little about

1 + 0,5 + 23 + 1 - 1 = 4

QUESTIONS ASKED OPPOSITION (SPEECH)

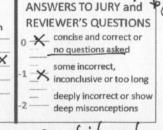
DISCUSSION WITH REPORTER

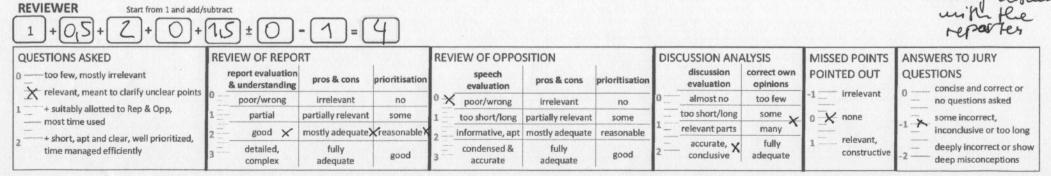
QUESTIONS ASKED 1 too few, mostly irrelevant	OPPOSITION (SP understandi presentati
relevant, aimed at resolving unclear points in the report	0 almost not
	1 some main p
2 + short, apt and clear, well	2 main poin
prioritized, all time used	all relevant p
NOTES:	

1 . 1 . . .

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

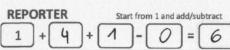
relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation
almost no	too few X	poor	no
few	some	some aspects fine X	some X
some X	some correct	good	reasonable
good	many correct	some aspects efficient	fair
new crucial point(s)	+ improvement suggestions	overall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





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Korner, Marianne





SCORESHEET

Stage: 1 Fight 2 Z, Problem:

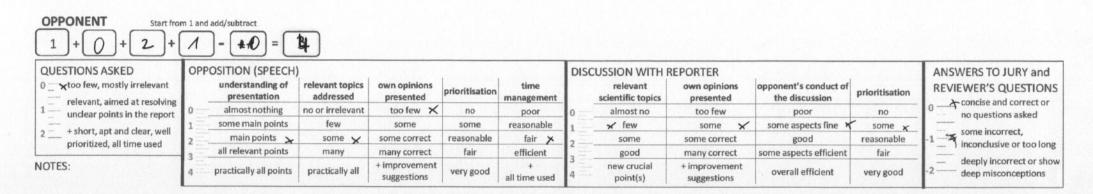
Poland: Rep

Gymnasium Freistadt: OP

Germany Rosenheim: Rov

REPOR	RT							DISC	USSION WITH OPP	ONENT	ANSWERS TO JURY,
	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	OPPONENT, and REVIEWER'S QUESTION:
	almost no	almost no	too few	no/almost no ⊀	others' data, incorrectly cited	misunderstood	unclear, chaotic		arguments/responses	discussion	REVIEWER 3 QUESTIONS
-	some	some	some	some	review of sources, cited	partly	partly clear	0	too few	poor	concise and correct or
2	fair	fair 🗡	fair	not well fitting	some own input	average	average	-	some 🔀	₹30me aspects fine	no questions asked
	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	=-	many + data/theory	good some aspects	some incorrect,
	detailed × demonstrative	quite detailed, correct	+ results explained errors analysed ×	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting K	overall clear, demonstrative	2	convincingly supported		inconclusive or too lo
	ep and comprehensible,		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3	proved deep understanding	overall efficient	deep misconceptions

NOTES:



REVIEWER Start from 1 and add/s $1 + O_1 S + A_1 S + A_2 + A_3 + A_4 + A_4 + A_5 + $	Ol		- Off =	4							
QUESTIONS ASKED	REV	IEW OF REPO	RT		REVIEW OF OPPO	SITION		DISCUSSION AN	ALYSIS	MISSED POINTS	ANSWERS TO JURY
0 — too few, mostly irrelevant ✓ relevant, meant to clarify unclear points		eport evaluation & understanding	nroe & cone	prioritisation	speech evaluation	pros & cons	prioritisation	discussion evaluation	correct own opinions	POINTED OUT	QUESTIONS concise and correct or
1 + suitably allotted to Rep & Opp,	0	poor/wrong	irrelevant	no	0 poor/wrong	irrelevant	no	0 almost no	₹too few	-1 irrelevant	no questions asked
most time used	1	× partial	partially relevant	xsome	1 xtoo short/long	partially relevant	some (too short/long	some	none none	some incorrect,
+ short, apt and clear, well prioritized,	2 =	good	mostly adequate	reasonable	2 informative, apt	mostly adequate	reasonable	relevant parts	-	relevant,	inconclusive or too long
time managed efficiently	3	detailed, complex	fully adequate	good	condensed & accurate	fully adequate	good	2 accurate, condusive	fully adequate	constructive	-2 deeply incorrect or show deep misconceptions

NOTES:

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Mnevets, Daniil

SCORESHEET

Stage: 1 Fight 2 Z, Problem: 10

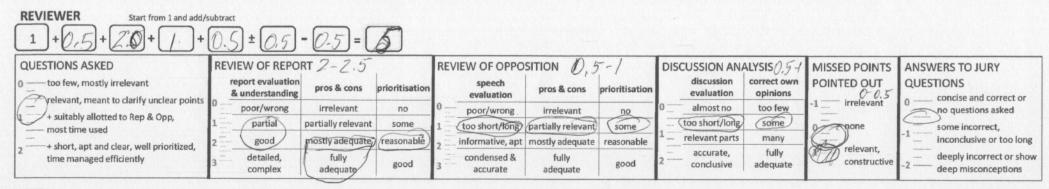
7. 727. 60 +		10	3.20	Stage: 1 Fight 2 Z, P	roblem: / O				
- + (Z,5) + (°,5)	J-[[[]]=[[Poland:		Gymnasium Freis	tadt: Germ	any Rosenheii	n:
PORT 2.0 - 9, 5 phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	DISCUSSION WITH OPP	ONENT 0.5. reporter's conduct at the	ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS
almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/responses	discussion	KEVIEWER S QUESTIONS
some	some	some	some	review of sources, cited	partly	partly clear	too few	poor	Concise and correct or
fair	fair	fair	not well fitting	some own input	average	average	some	some aspects fine	no guestions asked
good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good some aspects	some incorrect,
detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	convincingly supported		inconclusive or too lor
deep and comprehensible shows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 — proved deep understanding	overall efficient	deep misconceptions

NOTES:

REPORTER

Start from 1 and add/subtract

OPPONENT Start from 1 + 0.5 + 1 + 6	_	add/subtract	3									
	OPPO	OSITION (SPEECH)	1		1		DISC	USSION WITH I	0.00	7-0.5		ANSWERS TO JURY and
too few, mostly irrelevant relevant, aimed at resolving		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	REVIEWER'S QUESTIONS
unclear points in the report	0	almost nothing	no or irrelevant	too few	no	poor	0	almost no	too few	poor	no	no questions asked
2 + short, apt and clear, well	1 ===	some main points	few	some	some	reasonable	1	few	some	some aspects fine	some	
prioritized, all time used	2	main points	(some)	some correct	reasonable	fair	2	(some)	some correct	good	reasonable	some incorrect,
prioritized, all time used	2	all relevant points	many	many correct	fair	efficient	2	good	many correct	some aspects efficient	fair	
NOTES:	4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	+ improvement suggestions	overall efficient	very good	- deeply incorrect or show deep misconceptions



NOTES:

REPORTER Start from 1 and add/subtract 1 + 727+ 725-625 = 5



SCORESHEET

Stage: 1 Fight 2 Z, Problem: 10

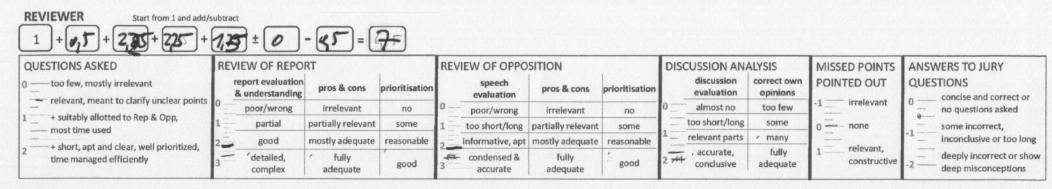
Daland Pa Chle -

Pfleger, Alexander

	+ 405+ 40	- (9) = (3	7)	回数级	Poland: G	ler	Gymnasium Freis	tadt	Opp Germa	any Rosenheii	m: Rev
POR	Т							DIS	CUSSION WITH OPP	ONENT	ANSWERS TO JURY,
	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	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic		argaments, responses	discussion	KEVIEWER 3 QUESTIONS
	some	ø some	some	g some	review of sources, cited	partly	partly clear	0	too few	poor	concise and correct or
	fair	fair	fair	not well fitting	some own input	average	average		some	some aspects fine	o no questions asked
-	good	good	well performed, sufficient number	deviations gualitatively analysed	+ some interesting results	some aspects above average	some parts well done	1 =	many	good	some incorrect,
_	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	2 -	+ data/theory _convincingly supported	some aspects efficient	inconclusive or too lon
m 0		A Committee of the Comm	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well	3 -	, proved deep understanding	overall efficient	deep misconceptions

NOTES:

	m 1 and add/subtract	4									
QUESTIONS ASKED	OPPOSITION (SPEECH)				DISC	USSION WITH	REPORTER			ANSWERS TO JURY and
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	REVIEWER'S QUESTIONS concise and correct or
unclear points in the report	0 almost nothing	no or irrelevant	too few	no	poor	0	almost no	too few	poor	no	no questions asked
	1 some main points	few	some	some	reasonable	1	few	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used	2 main points	some	' some correct	·reasonable	fair	2-	- some	 some correct 	good	' reasonable	some incorrect,
prioritized, all time used	all relevant points	many	many correct	fair		-	good	many correct	some aspects efficient	fair	
NOTES:	4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	+ improvement suggestions	overall efficient	very good	deeply incorrect or show deep misconceptions



NOTES:

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Worm, Paul SCORESHEET REPORTER Start from 1 and add/subtract Stage: 1 Fight 2 Z, Problem: 10 Kirch hof Poland: Germany Rosenheim Gymnasium Freistadt: REPORT DISCUSSION WITH OPPONENT ANSWERS TO JURY. relevant comparison between phenomenon reporter's OPPONENT, and theory/model own contribution task fulfilment science communication relevant experiments theory and experiment explanation conduct at the **REVIEWER'S QUESTIONS** arguments/responses no/ almost no X others' data, incorrectly cited discussion almost no almost no too few misunderstood unclear, chaotic few some some some some review of sources, cited partly X partly clear concise and correct or fair 🔪 some aspects fine fair fair not well fitting some own input average average no questions asked well performed deviations some parts. many good some aspects good good + some interesting results some incorrect, sufficient number qualitatively analysed well done. above average + data/theory some aspects inconclusive or too long detailed quite detailed, + results explained + theory limits considerable experimental interesting overall clear, efficient convincingly supported demonstrative correct errors analysed explained, conclusive or theoretical solution demonstrative deeply incorrect or show proved deep deep and comprehensible, detailed, complex, + reproducible, well fitting, deviations considerable experimental greater extent + complex concepts well overall efficient deep misconceptions understanding shows physical insight completely testable convincing analysis analysed, conclusive and theoretical communicated than expected NOTES: **OPPONENT** Start from 1 and add/subtract **QUESTIONS ASKED** OPPOSITION (SPEECH) **DISCUSSION WITH REPORTER** ANSWERS TO JURY and 0 X too few, mostly irrelevant understanding of relevant topics own opinions time relevant own opinions opponent's conduct of REVIEWER'S QUESTIONS prioritisation prioritisation presentation addressed scientific topics the discussion presented management presented relevant, aimed at resolving concise and correct or almost nothing no or irrelevant too few no poor alphost no toolew no questions asked unclear points in the report few some aspects fine some main points some **✓**some few **V**easonable some some + short, apt and clear, well some incorrect. reasonable main points fair X some some correct some some correct good reasonable inconclusive or too long prioritized, all time used all relevant points good many many correct efficient many correct some aspects efficient fair deeply incorrect or show NOTES: + improvement new crucial + improvement practically all points practically all very good overall efficient very good deep misconceptions suggestions all time used point(s) suggestions REVIEWER Start from 1 and add/subtract **REVIEW OF OPPOSITION** QUESTIONS ASKED REVIEW OF REPORT **DISCUSSION ANALYSIS** MISSED POINTS ANSWERS TO JURY discussion correct own POINTED OUT QUESTIONS report evaluation too few, mostly irrelevant speech prioritisation pros & cons pros & cons prioritisation evaluation opinions & understanding evaluation concise and correct or relevant, meant to clarify unclear points irrelevant too almost no poor/wrong irrelevant no questions asked no poor/wrong irrelevant no + suitably allotted to Rep & Opp, too ort/long partial partially relevant some some too short/long some & partially relevant none some incorrect, most time used relevant parts many inconclusive or too long informative, apt reasonal good mostly adequate mostly adequate reasonable + short, apt and clear, well prioritized. relevant, accurate, fully

likely irrelevant

condensed &

accurate

fully

adequate

good

conclusive

adequate

detailed,

complex

fully

adequate

good

time managed efficiently

IYPT - March 2019

deeply incorrect or show

deep misconceptions

constructive

sig	eim; ARGM75 Iran:) TYGHTG	Plesch, Martin
	DISCUSSION WITH OPP	ONENT	ANSWERS TO JURY,
nication otic	relevant arguments/responses	reporter's conduct at the discussion	OPPONENT, and REVIEWER'S QUESTIONS
ar	0 too few	poor	concise and correct or
	- some	some aspects fine	no questions asked
ts	many	good	
e ar, tive	+ data/theory convincingly supported	some spects efficient	some incorrect, inconclusive or too long deeply incorrect or show
epts well ted	3 — proved deep understanding	overall efficient	deep misconceptions

Stage: 2 Fight 2 Z, Problem: Gymnasium Freistadt: KAFFRIMEX Germany F REPORT relevant comparison between phenomenon theory/model own contribution task fulfilment science commu explanation experiments theory and experiment almost no almost no too few no/almost no others' data, incorrectly cited misunderstood unclear, cha some review of sources, cited partly partly clea fair fair not well ting average average some gyun input deviewons well performed. some aspects some par pood good + some interesting results qualitatively analysed sufficient number well don above average detailed quite detailed, + results explained + theory limits considerable experimental interesting overall cle demonstrative errors analysed correct explained, conclusive or theoretical solution demonstrat deep and comprehensible, detailed, complex, + reproducible, well fitting, deviations considerable experimental greater extent + complex conce shows physical insight | completely testable | convincing analysis analysed, conclusive and theoretical than expected communica NOTES: **OPPONENT** Start from 1 and add/subtract 0,75 **OPPOSITION (SPEECH)** QUESTIONS ASKED **DISCUSSION WITH REPORTER** ANSWERS TO JURY and too few, mostly irrelevant understanding of relevant topics own opinions time relevant own opinions opponent's conduct of REVIEWER'S QUESTIONS prioritisation prioritisation presentation addressed presented management scientific topics the discussion Orelevant, aimed at resolving presented concise and correct or almost nothing no or irrelevant too few no (na) poor almost no too few poor undear points in the report no questions asked some main points few some reasonable few some some some aspects fine some + short, apt and clear, well some incorrect. some main points some correct reasonable fair some some correct reasonable good prioritized, all time used inconclusive or too long all relevant points 8000 some aspects efficient many many correct fair efficient many correct fair deeply incorrect or show NOTES: + improvement new crucial + improvement practically all points practically all overall efficient very good very good deep misconceptions suggestions all time used point(s) suggestions Valam :-Pros fine, REVIEWER Start from 1 and add/subtract **DISCUSSION ANALYSIS** QUESTIONS ASKED **REVIEW OF REPORT REVIEW OF OPPOSITION** MISSED POINTS ANSWERS TO JURY discussion correct own report evaluation **POINTED OUT** QUESTIONS too few, mostly irrelevant speech pros & cons prioritisation prioritisation pros & cons evaluation opinions & understanding evaluation concise and correct or relevant, meant to clarify unclear points irrelevant 60 poor/wrong irrelevant almost no too few poor/wrong irrelevant (no) no questions asked + suitably allotted to Rep & Opp, partial partially relevant too short/long some some partially relevant too short/long some none some incorrect. most time used relevant parts many good mostly adequate inconclusive or too long reasonable informative, apt mostly adequate reasonable + short, apt and clear, well prioritized. relevant,

condensed &

accurate

fully

adequate

good

accurate,

conclusive

fully

adequate

constructive

SCORESHEET

NOTES:

time managed efficiently

1 . 12 . . .

REPORTER '

Start from 1 and add/subtract

detailed.

complex

fully

adequate

good

deeply incorrect or show

deep misconceptions

REPORTER Start 1 + 3,5 + 2	scopical as a from 1 and add/subtra	/ /	of your wo	SCORESHEET Stage: 2 Fight 2 Z, P	roblem:		gn Stackel gen: Of. Iran	Bul	esp. tolaka Beck, Anatol
REPORT phenomenon explanation almost no some fair good detailed demonstrative deep and comprehensible, shows physical insight		relevant experiments too few some fair well performed, sufficient number + results explained errors analysed + reproducible, convincing analysis	some not well fitting X deviations qualitatively analysed + theory limits explained, conclusive well fitting, deviations	own contribution others' data, incorrectly cited review of sources, cited some own input + some interesting results considerable experimental or theoretical considerable experimental and theoretical	task fulfilment misunderstood partly average some aspects above average interesting solution greater extent than expected	science communication unclear, chaotic partly clear average X some parts well done overall clear, demonstrative + complex concepts wel communicated	DISCUSSION WITH O relevant arguments/respons too few some many data/theory convincingly support proved deep understanding	reporter's conduct at the discussion poor some aspects fine good some aspects	ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS concise and correct or no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions
OPPONENT 1 + 1 + 2,5 QUESTIONS ASKED 0 too few, mostly irrelevant relevant, aimed at resolvir unclear points in the report relevant, apt and clear, well prioritized, all time used	ng present of almost of the present	(SPEECH) tanding of releval entation add t nothing no or in nain points for points so vant points me	ent topics own opinion presented relevant too few some some correctically all suggestions	no poor reasonable fair t fair x efficient	DISCUSSION Restriction of the scient of the	DN WITH REPORTER levant own opin present nost no too fe few some some some col	opponent's conducted the discussion w poor some aspects fin rect good rect X some aspects effice ement overall efficient	prioritisation no some reasonable X	ANSWERS TO JURY and REVIEWER'S QUESTIONS o concise and correct or no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions
REVIEWER Start 1 + 1.5 + Z QUESTIONS ASKED To few, mostly irrelevant relevant, meant to clarify suitably allotted to Rep a most time used short, apt and clear, well time managed efficiently	rom 1 and add/subtra + Z + A RE unclear points & Opp,	tet ±	la reserve	REVIEW OF OPPO speech evaluation poor/wrong too short/long informative, app condensed &	SITION	prioritisation no some reasonable reasonable	pool may of point ed out frequency of SION ANALYSIS scussion correct own aluation opinions most no too few	MISSED POINTS POINTED OUT irrelevant none relevant, constructive	ANSWERS TO JURY QUESTIONS O

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Korner, Marianne

REPORTER Start from 1 and add/subtract 1 + 4 + 3 - 0 = 8



SCORESHEET

Stage: 2 Fight 2 Z, Problem:

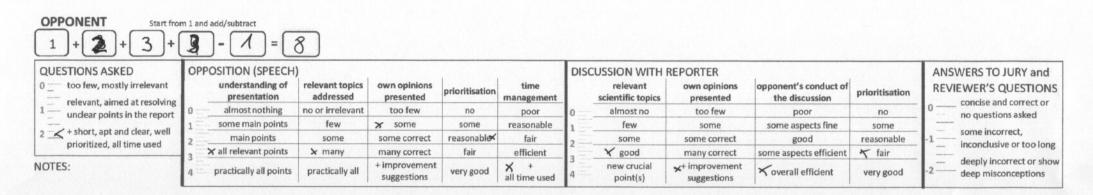
Gymnasium Freistadt: &EP

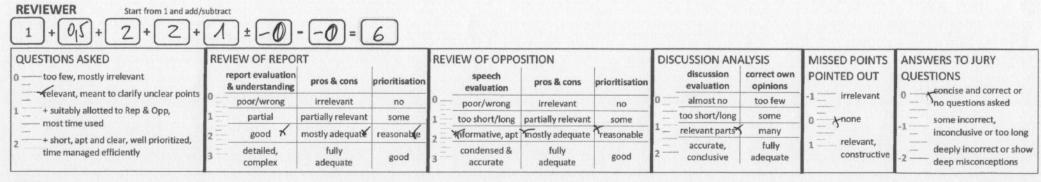
Germany Rosenheim: OP

an: ROV

REPORT								DISCU	SSION WITH OPP	ONENT	ANSWERS TO JURY,
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication		relevant guments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	ai	guments/responses	discussion	REVIEWER 3 QUESTIONS
	some	some	some	some	review of sources, cited	partly	partly clear	0	too few	poor	✓ concise and correct or
	fair	メ fair	× fair	not well fitting	some own input	→ average	× average		some	some aspects fine	
,	≽ good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	xome aspects above average	some parts well done	=-	many + data/theory	good some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental	interesting solution	overall clear, demonstrative	-	nvincingly supported		inconclusive or too long
a second or	and comprehensible, ows 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	3 2	proved deep understanding	Verall efficient	deep misconceptions

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SCORESHEET

Stage: 2 Fight 2 Z, Problem: 5

Start from 1 and add/subtract **Gymnasium Freistadt:**

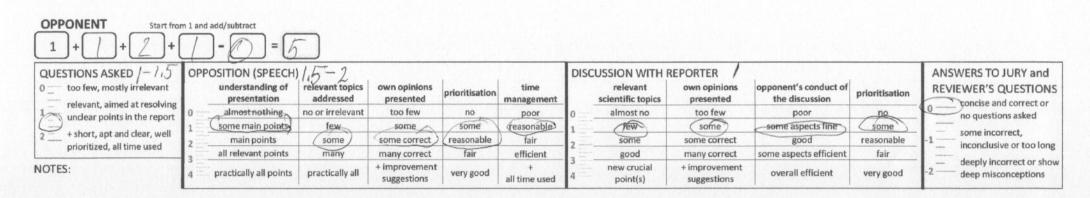
Germany Rosenheim:

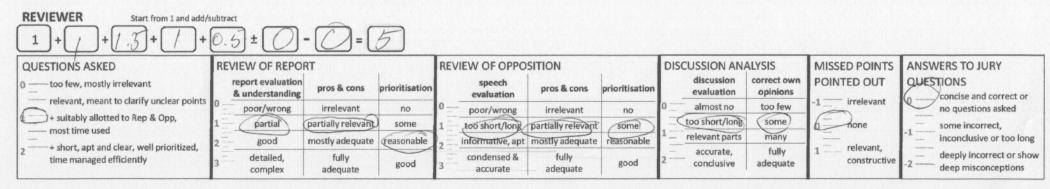
Iran:

REPOF	RT							DISCUSSION WITH OPP	ONENT /	ANSWERS TO JURY,
	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	OPPONENT, and REVIEWER'S QUESTIONS
,	almost no	almost no	toofew	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/responses	discussion	REVIEWER 3 QUESTIONS
1	some	(some)	some	some	review of sources, cited	partly	partly clear	too few	poor	concise and correct or
2	fair	fair	fair	not well fitting	some own input	average	average	some	some aspects fine	0 no questions asked
4	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	convincingly supported	efficient	inconclusive or too long deeply incorrect or show
The second	eep and comprehensible, shows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 proved deep understanding	overall efficient	deep misconceptions

NOTES:

REPORTER





NOTES:

REPORTER

phenomenon

explanation almost no

some

fair

good T

detailed

demonstrative

deep and comprehensible, detailed, complex,

REPORT

Start from 1 and add/subtract

theory/model

almost no

some

fair

good

correct

quite detailed,

shows physical insight completely testable convincing analysis

1 . 1 . . .

relevant

experiments

too few

some

fair

well performed,

sufficient number

+ results explained

errors analysed

+ reproducible,



comparison between

theory and experiment

no/almost no

some

not well fitting

deviations

qualitatively analysed

explained, conclusive

well fitting, deviations

analysed, conclusive

→ + theory limits

SCORESHEET

own contribution

review of sources, cited

some own input

+ some interesting results

considerable experimental

or theoretical

considerable experimental

and theoretical

Stage: 2 Fight 2 Z, Problem: 5

others' data, incorrectly cited misunderstood

task fulfilment

partly

average

some aspects

above average

interesting

solution

greater extent

than expected

Gymnasium Freistadt:

convincingly supported

proved deep

understanding

Pfleger, Alexander

deeply incorrect or show

deep misconceptions

Gei

demonstrative

+ complex concepts well

communicated

Germany Rosenho	eim:	/ Iran:		
science communication	DISC	relevant arguments/responses	reporter's conduct at the	ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS
unclear, chaotic	-	anguinemes/ responses	discussion	REVIEWER'S GOESTIONS
partly clear	U	too few	poor	concise and correct or
average		some	some aspects fine	
some parts	1 -	many	▶ good	
well done	+ data/theory		some aspects	some incorrect,
overall clear,	2	convincingly supported		inconclusive or too long

efficient

overall efficient

NOTES:

OPPONENT Start from	n 1 and add/subtract	5					•				
QUESTIONS ASKED	OPPOSITION (SPEECH)				DISC	USSION WITH	REPORTER			ANSWERS TO JURY and
too few, mostly irrelevant relevant, aimed at resolving	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	REVIEWER'S QUESTIONS
undear points in the report	0 almost nothing	no or irrelevant	too few	no	poor	0	almost no	too few	poor	no	no questions asked
	1 some main points	few	some	some	reasonable	1	few	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used	2 main points	some	some correct	reasonable	fair	12	some	some correct	• good	reasonable	some incorrect,
prioritized, all time used	all relevant points	many	· many correct	³ fair	efficient	1-	good	' many correct	some aspects efficient	¹ fair	
NOTES:	4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	+ improvement suggestions	overall efficient	very good	deeply incorrect or show deep misconceptions

REVIEWER Start from 1 and add/s	ubtract	± 0	- 0 =	6									
QUESTIONS ASKED	REV	IEW OF REPO	RT		REV	/IEW OF OPPO	SITION		DIS	CUSSION AN	ALYSIS	MISSED POINTS	ANSWERS TO JURY
0 — too few, mostly irrelevant		eport evaluation & understanding	nroc & conc	prioritisation		speech evaluation	pros & cons	prioritisation		discussion evaluation	correct own opinions	POINTED OUT	QUESTIONS concise and correct or
relevant, meant to clarify unclear points	0	poor/wrong	irrelevant	no	0	poor/wrong	irrelevant	no	0	almost no	too few	-1 irrelevant	no questions asked
+ suitably allotted to Rep & Opp, most time used	1	partial	partially relevant	some	1	too short/long	partially relevant	some	-	too short/long	some	0 - none	some incorrect,
+ short, apt and clear, well prioritized,	2	good ·	mostly adequate	reasonable	2	informative, apt	mostly adequate	reasonable	1-	relevant parts	many	1 relevant,	inconclusive or too long
time managed efficiently	3	detailed, complex	fully adequate	good	3	condensed & accurate	fully adequate	good	2	accurate, conclusive	fully adequate	constructive	-2 — deeply incorrect or show deep misconceptions

Worm, Paul

REPORTER Start from 1 and add/subtract

deep and comprehensible, detailed, complex,

phenomenon

explanation

some

fair

good

detailed

demonstrative

almost no

comparison between

theory and experiment

some

not well fitting

deviations

qualitatively analysed

+ theory limits

explained, conclusive

well fitting, deviations

no/almost no

SCORESHEET

own contribution

others' data, incorrectly cited

review of sources, cited

+ some interesting results

considerable experimental

or theoretical

considerable experimental

and theoretical

some own input

Stage: 2 Fight 2 Z, Problem: 5 65C F.

Gymnasium Freistadt: A. Kar Pagermany Rosenheim: C. A

misunderstood

partly

average

some aspects

above average

interesting

solution

greater extent

than expected

task fulfilment science communication

unclear, chaotic

partly clear

average

some parts

well done

overall clear,

demonstrative

+ complex concepts well

communicated

DISCUSSION WITH OPPONENT reporter's relevant conduct at the arguments/responses discussion too few poor some some aspects fin many pood + data/theory some aspects convincingly supported efficient proved deep overall efficient understanding

ANSWERS TO JURY. OPPONENT, and **REVIEWER'S QUESTIONS** concise and correct or

no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions

NOTES:

REPORT

OPPONENT Star	rt from 1 and add/subtract
1 + 0.5 + 2.0	+ 7.5 - 0 = 5
QUESTIONS ASKED	OPPOSITION (SPEECH)

theory/model

some

fair

good

quite detailed,

correct

shows physical insight completely testable convincing analysis analysed, conclusive

almost no

QUESTIONS ASKED	OPPO	DSITION (SPEECH)				
too few, mostly irrelevant		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
undear points in the report	0	almost nothing	no or irrelevant	too few	no	poor
+ short, apt and clear, well	1	some main points	few	some	some	reasonable
prioritized, all time used	2	main points	some	some correct	reasonable	X fair
prioritized, all time used	3	all relevant points	many	many correct	fair	efficient
NOTES:	4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

relevant

experiments

too few

some

well performed,

sufficient number

+ results explained

errors analysed

+ reproducible,

fair X

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

REXA	EWER'S QUESTIONS
00	concise and correct or no questions asked
1	some incorrect, inconclusive or too long
2	deeply incorrect or show deep misconceptions

ANSWERS TO JURY and

REVIEWER	Start from 1 and add/subtract
1 + 1.25 +	1.5 + 1.5 + 0.5 - 0.79 - 0 = 5

1 . 1 . . .

QUESTIONS ASKED	REVIE	W OF REPO	RT		REV	IEW OF OPPO	SITION	
0 — too few, mostly irrelevant relevant, meant to clarify unclear points	8.0	ort evaluation understanding	pros & cons	prioritisation		speech evaluation	pros & cons	prioritisa
		poor/wrong	irrelevant	no	0	poor/wrong	irrelevant	no
1	1	partial	partialerelevant	some	1	too short/long	partially relevent	some
+ short, apt and clear, well prioritized,	2	boog	mostly adequate	asonable	2-	informative, apt	mostly adequate	reasona
time managed efficiently	3	detailed, complex	fully adequate	good	3	condensed & accurate	fully adequate	good

	DIS	CUSSION ANA	ALYSIS	MISSED POINTS	A
tion		discussion evaluation	correct own	POINTED OUT	C
	0	almost no	C oo few	-1 rrelevant	0
		too hort/long	some	none	
V	1_	relevant parts	many		-1
~	2	accurate, conclusive	fully adequate	1 relevant, constructive	-2

S	ANSWERS TO JURY
	QUESTIONS
	0 Concise and correct or no questions asked
	some incorrect, inconclusive or too long
	- deeply incorrect or show

deep misconceptions

REPORTER Start fro	om 1 and add/subtra	ct		SCORESHEE!		0.001		Sign			Plesch, Martin
1 + 0,25 + 0,75 -			E (18)	Stage: 3 Fight			. 17.1			. 6.001	
- 10,43			国务税	Germany Ros	senheim:	-irchhof	Iran: Moh		Polar		
REPORT								1	DISCUSSION WITH OP	1	ANSWERS TO JURY,
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	n task	k fulfilment	science communi	ication	relevant arguments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTIONS
0 almost no	almostno	toolew	(no) almost no	others' data, incorrect	tly cited misu	understood	unclear, chao	tic		discussion	REVIEWER'S QUESTIONS
som swrong	. some	some	some	review of sources, o	cited	partly	partiy dear		too few	poor	concise and correct or
2 fair	fair	fair	not well fitting	some own input	t a	average	average	1	seme seme	some aspects fine	0 no questions asked
good good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting re	PSHITS	me aspects ove average	some parts well done		many	good	some incorrect,
5 detailed	quite detailed,	+ results explained	+ theory limits	considerable experim	nental int	teresting	overall clear		+ data/theory convincingly supported	some aspects efficient	inconclusive or too long
demonstrative deep and comprehensible, d	correct	errors analysed + reproducible,	explained, conclusive well fitting, deviations	or theoretical considerable experim		solution ater extent	+ complex concep		proved deep	overall efficient	deeply incorrect or show deep misconceptions
7		convincing analysis	analysed, conclusive	and theoretical		n expected	communicate		understanding	Overall efficient	deep maderiospilorio
1 + 0, 8 + 7,8 +	om 1 and add/subtra	= 6				DISCUSSION	ON WITH BEDO	DTED			ANSWERS TO HIPV
QUESTIONS ASKED	OPPOSITION			. 1			ON WITH REPO		1	el .	ANSWERS TO JURY and
0 too few, mostly irrelevant			nt topics own opinion ressed presented	prioritisation	time anagement			vn opinior presented	opponent's conduct the discussion	prioritisation	REVIEWER'S QUESTIONS
relevant, aimed at resolving	-		rrelevant too few	no	peor	annual contract of the contrac		too few	poor	no	0 concise and correct or
unclear points in the report			ew some		ea onable	0	few	some	some aspects fine	some	no questions asked
2 - + short, apt and clear, well		points so	ome some corre		fair	3		me correc		reasonable	some incorrect, inconclusive or too long
prioritized, all time used	all relev	vant soints m	manyserre		efficient	2	good m	anyncorrec	t some spects efficien		American Control of the Control of t
NOTES:	4 practical	ly all points pract	+ improvement suggestion		+ I time used	4 nev	.1 .1	ugges ions	Overall efficient	very good	- deeply incorrect or show deep misconceptions
REVIEWER Start from 1 + 1 + 2 +	om 1 and add/subtra	net 7 ± -	1=6			C	NL -				
QUESTIONS ASKED	RE	VIEW OF REPORT	Г	REVIEW OF	OPPOSITIO	N	DI	SCUSSIC	ON ANALYSIS M	ISSED POINTS	ANSWERS TO JURY
0 too few, mostly irrelevant		report evaluation	pros & cons prioriti	spee	ech	os & cons	prioritisation			OINTED OUT	QUESTIONS
relevant, meant to clarify ur	clear points o	& understanding		evalua	ation	US OL CUITS		-	ation opinions	irrelevant	0 concise and correct or
1 + suitably allotted to Rep &		poor/wrong	irrelevant	o) poor/w	wrong ir	rrelevant	60		st no too few		no questions asked
most time used	1_	partial p	partially relevant sor	me 1 too shor	rt/long partia	ally relevant	some	too sho	- 0	none	some incorrect,
+ short, apt and clear, well p	prioritized 2	good r	mostly adequate reason	nableinformat	tive, apt most	fly adequate	reasonable	relevar		relevant,	inconclusive or too long
time managed efficiently	3	d∉vailed, consplex	fully adecrate go	od 3 conden		fully	good 2	cond		constructive	-2 — deeply incorrect or show deep misconceptions
NOTES:					Aus	(-					IYPT – March 2019
					, 1 , >	5			-0000	ERENCE	entar
									KEFE	LEVEE	PEARLE

				(Prone and	e some expe	ments.	ge shall	d have per	fund,	en with your up
			A				o i o	AnhaO	DO	Beck, Anatol
REPOR	TER Start	from 1 and add/subtra	ct /		SCORESHEET Stage: 3 Fight 2 Z, F	Problem:	Sig	mountes.		Deck, Anator
1 +	05+ 1	-[0]=[2		開發	Germany Rosenhe	_	Iran: 00.	Pola	nd: Nev	
REPORT				Land Avi CX	octinally Roseille	m. rup.	man. U().	DISCUSSION WITH OF		ANSWERS TO JURY,
ine. Oit.	phenomenon	theory/model	relevant	comparison between	own contribution	task fulfilment	science communication	relevant	reporter's	OPPONENT, and
0	explanation almost no	almost no 🗶	experiments too few	no/almost no	others' data, incorrectly cited		unclear, chaotic	arguments/response	conduct at the discussion	REVIEWER'S QUESTIONS
1	some X	some	some X	some	review of sources, cited	partly	partly clear	0 too few 🗙		concise and correct or
2	fair	fair	fair	not well fitting	some own input	average	average	1	some aspects fine	no questions asked
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts ×	many	good 👟	some incorrect,
5	detailed	quite detailed,	+ results explained	+ theory limits	considerable experimental	interesting	overall clear,	+ data/theory convincingly supporte	some aspects d efficient	inconclusive or too long
6	demonstrative	correct	errors analysed	explained, conclusive	or theoretical	solution	demonstrative	3 proved deep		deeply incorrect or show deep misconceptions
7	o and comprehensible, lows physical insight	completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	understanding	overall efficient	deep misconceptions
OPPON	is not start 1,5 + 1,5	ran Rea Rouded E from 1 and add/subtra + 15 - 0	year A	inding lacks	He ryou	lo cite	eony (hypos	leis		point out
0 too 1 rele 1 uno 2 +si prid	one ASKED of few, mostly irrelevant evant, aimed at resolving clear points in the report hort, apt and clear, well oritized, all time used	ng prese 0 almos 1 some m 2 main 3 all relev	anding of relevantation addr. nothing no or in ain points for points x so ant points m	own opinion presented relevant too few some some correct any many correct cally all	no poor some reasonable fair t fair efficient ent very good +	ent scient 0 ali	con WITH REPORTER elevant own opini presente most no too fev few some some some core good many core w crucial + improver suggestic	the discussion poor some aspects fine ect good ect X some aspects efficient overall efficient	no some X reasonable	ANSWERS TO JURY and REVIEWER'S QUESTIONS o concise and correct or no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions
noil	good questi instead of	our!		v.	c c	ould have	the qu	estier mit	- the t	ine-depending
REVIEV	VER Start	from 1 and add/subtra $+ 15 + 1$	ct S ± (25) -	95=6		abed was doub his stion pake	1/ the sens.	ker did not	quontif	general sound
0 — too rel 1 × + s mo 2 + s	ONS ASKED of few, mostly irrelevant evant, meant to clarify uitably allotted to Rep ost time used hort, apt and clear, wel ne managed efficiently	unclear points 0		pros & cons prioritis irrelevant no artially relevant son nostly adequate reasor fully adequate good	o poor/wrong too short/long hableX condensed &	SITION pros & cons irrelevant	prioritisation no some reasonable DISCUSS dis eva toos		OINTED OUT	ANSWERS TO JURY QUESTIONS O concise and correct or no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions
NOTES:			I Maga						brought thought velocity	own sof initial is of depulley or it

sign llone

Korner, Marianne

REPORTER Start from 1 and add/subtract

1 + 1 - 2 = 1



SCORESHEET

Stage: 3 Fight 2 Z, Problem:

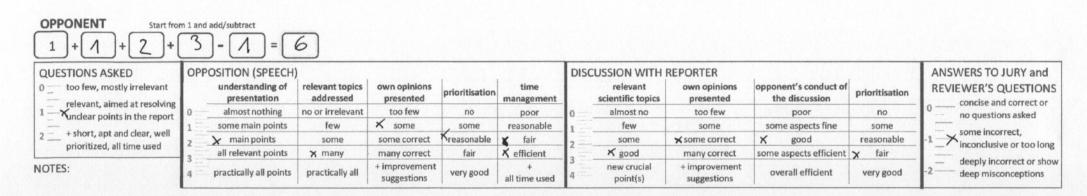
Germany Rosenheim: REP

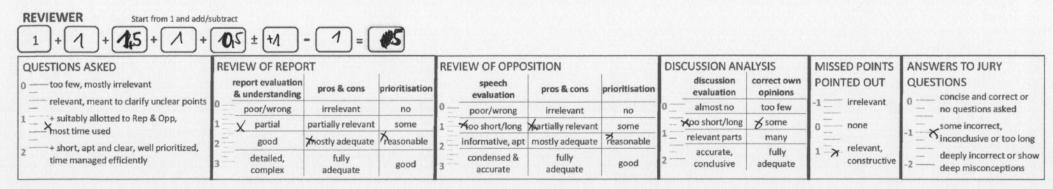
Iran: OP

Poland: REV

REPO	ORT							DIS	CUSSION WITH OPP	ONENT	ANSWERS TO JURY,
	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	OPPONENT, and REVIEWER'S QUESTIONS
0	almost no 🗡	almost no 🗙	too few 🛪	no/almost no 🛪	others' data, incorrectly cited	misunderstood	unclear, chaotic		arguments/responses	discussion	REVIEWER 3 QUESTIONS
1	some	some	some	some	review of sources, cited ⊀	partly 💉	partly clear X	0	🛪 too few	poor	concise and correct or
2	fair	fair	fair	not well fitting	some own input	average	average		some	some aspects fine	
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	-	many + data/theory	good some aspects	
5	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	2	convincingly supported		inconclusive or too long
7	deep and comprehensible, shows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3	proved deep understanding	overall efficient	deep misconceptions

NOTES:





NOTES:

Mnevets, Daniil

SCORESHEET

Stage: 3 Fight 2 Z, Problem: //

sign ##

Germany Rosenheim:

Iran:

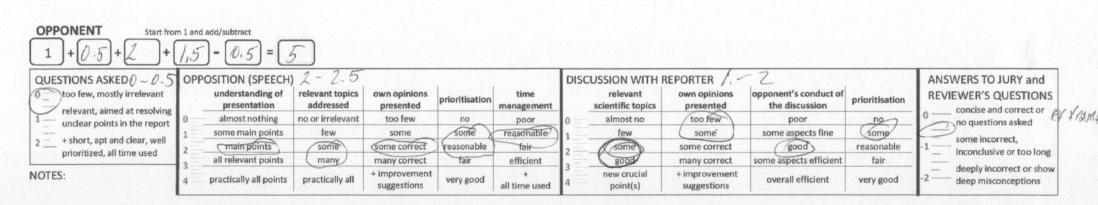
Poland:

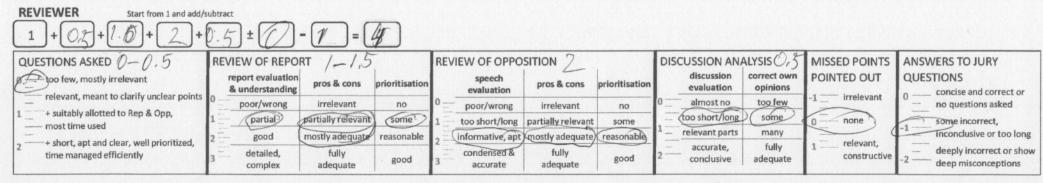
				hand at a second	ocimally Roscillici		II alli.	Fotali	u.	
PORT	10-5-1							DISCUSSION WITH OPP	ONENT /	ANSWERS TO JURY,
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	relevant arguments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTION
	almost no	almost no	too few	(no/almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/responses	discussion	REVIEWER 3 QUESTIC
	some	some	some	some	review of sources, cited	partly	partly clear	0 too few	poor	concise and corre
	fair	fair	fair	not well fitting	(some own input)	average	average'	some	some aspects fine	
	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good' some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	convincingly supported		inconclusive or to
	p and comprehensible, hows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 — proved deep understanding	overall efficient	deep misconception

NOTES:

REPORTER

Start from 1 and add/subtract





Start from 1 and add/subtract 1 + 1,75 + Q+5- d5 = 3

SCORESHEET

Stage: 3 Fight 2 Z, Problem: 16

Germany Posenheim

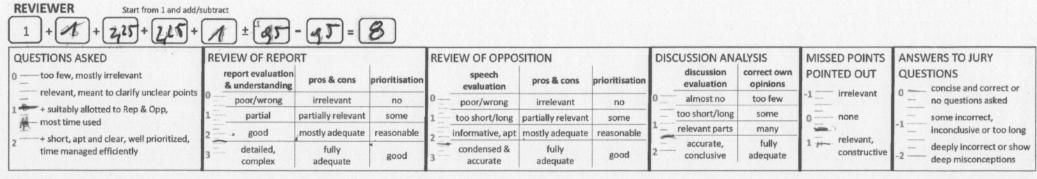
sign flord Play

Pfleger, Alexander

ORT								DISCUSSION WITH OP	PONENT	ANSWERS TO JURY,
	enomenon xplanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	relevant arguments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTION
а	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic	a gament, copens	discussion	MEVIEWEN'S QUESTION
	some	° some	some	some	review of sources, cited	partly	partly clear	too few	poor	concise and correct of
	fair	fair	° fair	not well fitting	* some own input	* average	average	some	some aspects fine	
	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good some aspects	some incorrect,
	detailed monstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	convincingly supported		inconclusive or too
		detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 proved deep understanding	overall efficient	deep misconception

NOTES:

OPPONENT Start from	1 and 2	add/subtract	4									
QUESTIONS ASKED	OPPO	OSITION (SPEECH))				DISC	USSION WITH	REPORTER			ANSWERS TO JURY and
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	REVIEWER'S QUESTIONS
unclear points in the report	0	almost nothing	no or irrelevant	too few	no	poor	0	almost no	too few	poor	no	no questions asked
	1	some main points	few	» some	some	reasonable	10	- few	r some	some aspects fine	some	
2 + short, apt and clear, well	2	, main points	some	some correct	reasonable	fair	2		some correct	good	reasonable	some incorrect,
prioritized, all time used	2	all relevant points	• many	many correct	* fair	' efficient	2	good	many correct	some aspects efficient	fair	
NOTES:	4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	+ improvement suggestions	overall efficient	very good	- deeply incorrect or show deep misconceptions



SCORESHEET
Stage: 3 Fight 2 Z, Problem: 16
Germany Rosenheim: Q. Vicyclifaff: P. M. M. Suni Poland: H. Supe(Worm, Paul

REPORTER

Start from 1 and add/subtract

REPORT								DISCUS	SION WITH OPP	ONENT	ANSWERS TO JURY,
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	210	relevant guments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no X	too few X	no/ almost no 🗸	others' data, incorrectly cited	misunderstood	unclear, chaoti	are	differits/ responses	discussion	KEVIEWER 3 QUESTIONS
	some 🗡	some	some	some ^	review of sources, cited	partly V	partly clear 1	0	too few	poor	concise and correct or
=	fair	fair	fair	not well fitting	some own input 🗶	average	average		× some	me aspects fine	0 no guestions asked
	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	-	many + data/theory	good some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	cor	vincingly supported		inconclusive or too long
Appropriate to the second second	p and comprehensible, nows 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	3	proved deep understanding	overall efficient	deep misconceptions

NOTES: About 5:30 Min still on clock

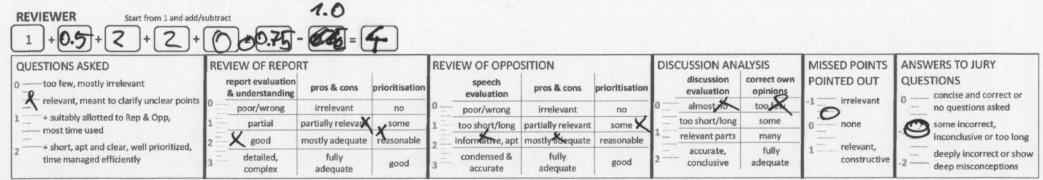
OPPONENT Start from 1 and add/subtract

0	STIONS ASKED 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
-	almost nothing	no or irrelevant	too few	no	poor
	some main points	few	some 🗸	some	reasonable
-	main points 💥	some 🗶	some correct	reasonabl	fair X
	all relevant points	many 1	many correct	fair	efficient
	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
almost no	too few	poor	no
few	o some	come aspects fine	v some
some	Some correct	good	reasonable
good	many correct	some aspects efficient	fair
new crucial point(s)	+ improvement suggestions	overall efficient	very good

		WERS TO JURY and
n	REVI	EWER'S QUESTIONS
	00	concise and correct or
	0	no questions asked
_		some incorrect,
-		inconclusive or too long
	-2	deeply incorrect or show deep misconceptions



REPORTER Start	from 1 and add/subtra	.	回拔回	SCORESHEET		sì			Plesch, Martin
1 + 285 + (1,25	- 0. = 2		明 ()	Stage: 4 Fight 2 Z, Iran:		Balandi PE	TYULK GV	mnasium Freista	dt: KAPERBOUK
REPORT	ا کی د		Elitera	Iran: KHT	1	Poland: TE	DISCUSSION WITH O	PPONENT	ANSWERS TO JURY,
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication		reporter's conduct at the	OPPONENT, and
0 almost no	almost no	too few	-	others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/respon	discussion	REVIEWER'S QUESTIONS
1 same	some	some	some	review of sources, cited	parth	partly clear	too few	poor	concise and correct or
² O fair	fair	fair	not well fitting	some own input	average	average	15 some	some aspects fine	0 no questions asked
good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good/ some aspects	some incorrect,
detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	convincingly suppor		deeply incorrect or show
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	3 — proved deep understanding	overall efficient	deep misconceptions
OPPONENT 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	t from 1 and add/subtra	et = 6							
QUESTIONS ASKED 1 too few, mostly irrelevant relevant, aimed at resolving	ing prese	anding of relevantation add	nt topics own opinion ressed presented	prioritisation manager	nent scier	ON WITH REPORTER elevant own opin ntific topics presen	ted the discussion	prioritisation	ANSWERS TO JURY and REVIEWER'S QUESTIONS
unclear points in the repo	ITC I		rrelevant too few some	some reas		most no too fe few some		no ne some	no questions asked
+ short, apt and clear, we	1 - (-)		ne some corre	ct reasonable fair		some some co		reasonable	some incorrect,
prioritized, all time used	A	7	nany many correc		nt o	good many co	1		inconclusive or too long
NOTES:	4 practical	y all points pract	+ improveme suggestion	s very good all time u	ised 4	ewerucial + imploye point(s) suggest	ment overall efficier	t very good	- deeply incorrect or show deep misconceptions
	Agree	with	theory?	Longe	e Def.	. decay			
1 + SAST + UN	from 1 and add/subtra $+ \left(0_{l} \right) + \left(0_{l} \right)$	= _	=5						
QUESTIONS ASKED	RE	VIEW OF REPOR	Т	REVIEW OF OPPO	OSITION	DISCUS	SION ANALYSIS	MISSED POINTS	ANSWERS TO JURY
0too few, mostly irrelevan	t	report evaluation	pros & cons prioriti	sation speech	pros & cons	mulaulaianalau	scussion correct own	POINTED OUT	QUESTIONS
relevant, meant to clarify	unclear points 0	& understanding		evaluation			most no too few	-1 irrelevant	0 concise and correct or
+ suitably allotted to Rep	& Opp,	poor/wrong	irrelevant no		irrelevant		short/long some		no questions asked
most time used	1-2		partially relevant sor	too singa, iying		Some 1 role	vent parts many	0 none	some incorrect, inconclusive or too long
+ short, apt and clear, we			mostly acquate reason			Teasonable	ccurate, fully	1 relevant,	deeply incorrect or show
time managed efficiently	3	detailed, complex	fulfy adequate goo	od 3 condensed & accurate	fully adequate	A section	onclusive adequate	constructive	deep misconceptions
NOTES:			OPIA	ucows on	十七年	ORY MISSIA	V6		IYPT March 20.

REPORTER 2 Start fr 1 + 5 + ♣ -	rom 1 and add/subtra	et	回交回 1580/29 回接数	SCORESHEET Stage: 4 Fight 2 Z, P	roblem:	sig	gn proto 10	nasium Freista	Beck, Anatol
REPORT	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	DISCUSSION WITH OPP	PONENT reporter's conduct at the	ANSWERS TO JURY, OPPONENT, and REVIEWER'S QUESTIONS
0 explanation almost no	almost no	too few		others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/responses	discussion	REVIEWER'S QUESTIONS
1 some	some X	some	some	review of sources, cited	partly	partly clear	0 too few	poor	
2 fair	fair	fair	not well fitting	some own input	average	average	some	some aspects fine	o concise and correct or no questions asked
3 good	good	well performed, sufficient number	deviations X qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many 💥	good 🐇	no questions asked
5 detailed X	quite detailed,	+ results explained	+ theory limits	considerable experimental	interesting	overall clear,	convincingly supported		1 - 4
6 demonstrative 7 deep and comprehensible, c shows physical insight		errors analysed + reproducible, convincing analysis		or theoretical considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	groved deep understanding	overall efficient	deeply incorrect or show deep misconceptions
NOTES:	1			H			• 0.	10,000	as plas understood out
OPPONENT 1 + 1 + 2 + 2 + 4 QUESTIONS ASKED 0 too few, mostly irrelevant relevant, aimed at resolving undear points in the report undear points in the report + short, apt and clear, well	OPPOSITION unders press	(SPEECH) tanding of relevantation add thothing no or it nain points	roler for your and mit topics presented too few some some correct some correct too few some c	no poor reasonab	DISCUSSION Scient O alr	ON WITH REPORTER own opin present tific topics most no too fee	ou contred a C Collins opponent's conduct of the discussion w × poor some aspects fine	of leek so	ANSWERS TO JURY and REVIEWER'S QUESTIONS Concise and correct or no questions asked some incorrect,
prioritized, all time used NOTES:	all relev	vant points m	many corrections with the many corrections and the many corrections with the many corrections and the many corrections are many corrections are many corrections and the many corrections are many corrections ar	ent very good +	3 nev	good many cor w crucial + improve oint(s) suggestion	rect some aspects efficient		inconclusive or too long deeply incorrect or show deep misconceptions
REVIEWER A Start fr	Com 1 and add/subtra	with	ouree"	by theone with any evidence the appear	it hits	al would be	on easier ye	o carl	V= 10 - 10 doil.
QUESTIONS ASKED 1 — too few, mostly irrelevant — relevant, meant to clarify u 1 — suitably allotted to Rep & — most time used 2 — + short, apt and clear, well time managed efficiently	Opp,	-	pros & cons prioriti irrelevant no partially relevant son mostly adequate reason fully adequate good	poor/wrong too short/long able condensed &		prioritisation no some reasonableX district ev too: 1 rele	scussion correct own properties of the contract of the contrac	IISSED POINTS OINTED OUT irrelevant none relevant, constructive	ANSWERS TO JURY of Color Concise and correct or no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions
NOTES:							Lo year	lique	IYPT – March 2019

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REPORTER

Start from 1 and add/subtract

SCORESHEET

Stage: 4 Fight 2 Z, Problem:

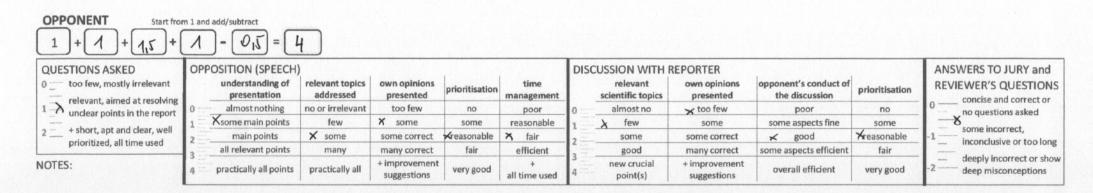
Iran: PRES

Poland: OP

Gymnasium Freistadt: ₽EV

REPO	RT							DISC	CUSSION WITH OPP	ONENT	ANSWERS TO JURY,
	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	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic		arguments/responses	discussion	KEVIEWER 3 QUESTIONS
	some	some	some	some ×	review of sources, cited	partly	partly clear	0 -	too few	poor	concise and correct or
	X fair	➤ fair	fair	not well fitting	some own input	average	average		some	some aspects fine	0 no questions asked
100 100 100 100 100 100 100 100 100 100	good	good	well performed, sufficient number		+ some interesting results	some aspects above average	some parts well done	1	★ many + data/theory **Theory **Theory	> good some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental	interesting solution	✓ overall clear, demonstrative	2	convincingly supported		inconclusive or too long deeply incorrect or show
d	eep 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	3	proved deep understanding	overall efficient	deep misconceptions

NOTES:



REVIEWER Start from 1 and add/s 1 + 2 + 2 + 2 + 2 +	subtract ±	- (10) =	= 210	7									
QUESTIONS ASKED	REVIEW	OF REPOR	RT		REV	IEW OF OPPO	SITION		DIS	CUSSION ANA	ALYSIS	MISSED POINTS	ANSWERS TO JURY
0 — too few, mostly irrelevant	& unc	t evaluation derstanding	pros & cons	prioritisation		speech evaluation	pros & cons	prioritisation		discussion evaluation	correct own opinions	POINTED OUT	QUESTIONS concise and correct or
relevant, meant to clarify unclear points	0 poo	or/wrong	irrelevant	no	0	poor/wrong	irrelevant	no	0	almost no	too few	-1 irrelevant	no questions asked
1+ suitably allotted to Rep & Opp, most time used	1	partial	partially relevant	some	1	too short/long	partially relevant	some	4	too short/long	some	o none	some incorrect,
+ short, apt and clear, well prioritized,	2 ×	good	nostly adequate	x easonable	2 >	informative, apt	nostly adequate	∢ easonable		relevant parts		relevant,	inconclusive or too long
time managed efficiently	1.5	etailed, omplex	fully adequate	good	3	condensed & accurate	fully adequate	good	2	accurate, conclusive	fully adequate	constructive	deeply incorrect or show deep misconceptions

NOTES:

Mnevets, Daniil



SCORESHEET

Stage: 4 Fight 2 Z, Problem: / 5

Poland:

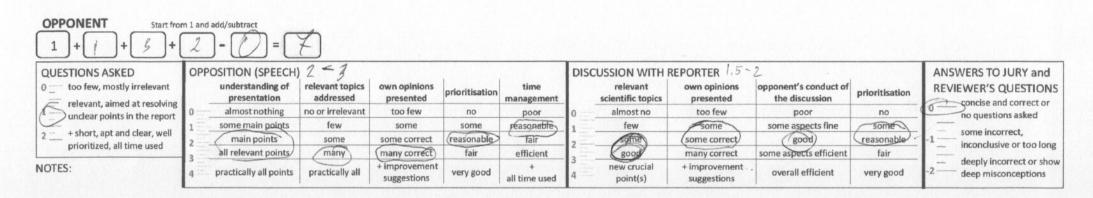
Gymnasium Freistadt:

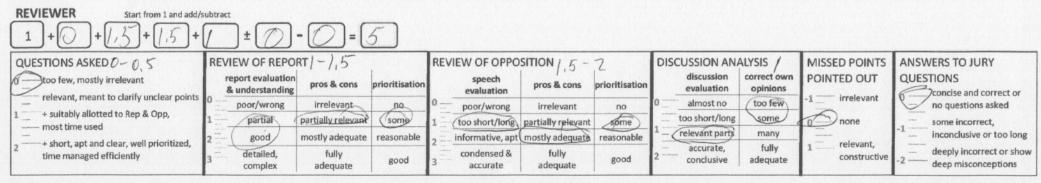
				Bernell of Maria	man.		i otaira.	-,	usidili i i cista	
PORT	1-3,5							DISCUSSION WITH OPP	ONENTO. 了	ANSWERS TO JURY,
	henomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication	relevant arguments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no	too few	(no/ almost no)	others' data, incorrectly cited	misunderstood	unclear, chaotic	arguments/responses	discussion	KEVIEWER'S QUESTIONS
	some	some	some'	some	review of sources, cited	partly	partly clear	too-few,	poor	concise and correct or
	fair	fair	fair	not well fitting	some own input	average	average	some	some aspects fine	0 no questions asked
	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	many + data/theory	good some aspects	some incorrect,
d	detailed emonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental	interesting solution	overall clear, demonstrative	convincingly supported	efficient	inconclusive or too long deeply incorrect or show
	nd comprehensible, vs physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 proved deep understanding	overall efficient	deep misconceptions

NOTES:

REPORTER

Start from 1 and add/subtract





NOTES:

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REPORTER Start from 1 and add/subtract



SCORESHEET

Stage: 4 Fight 2 Z, Problem: 15

Pfleger, Alexander

Poland:

Gymnasium Freistadt:

EPO	RT							DISC	CUSSION WITH OPP	ONENT	ANSWERS TO JURY,
	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	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no	too few	∉ no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic		angamento/ responses	discussion	KEVIEWER'S QUESTIONS
	some	some	some	some	review of sources, cited	partly	partly clear	0 -	too few	poor	concise and correct or
	fair	fair	fair	not well fitting	some own input	average	average		some	some aspects fine	no questions asked
george -	good	, good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	some aspects above average	some parts well done	1 =	+ data/theory	good some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	2	convincingly supported		inconclusive or too lor
	eep and comprehensible, shows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3	proved deep understanding	overall efficient	deep misconceptions

NOTES:

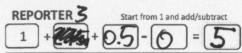
OPPONENT Start from	2	add/subtract	7									
QUESTIONS ASKED	OPPO	OSITION (SPEECH)					DISC	CUSSION WITH	REPORTER			ANSWERS TO JURY and
0 too few, mostly irrelevant relevant, aimed at resolving		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management		relevant scientific topics	own opinions presented	opponent's conduct of the discussion	prioritisation	REVIEWER'S QUESTIONS concise and correct or
unclear points in the report	0	almost nothing	no or irrelevant	too few	no	poor	0 ==	almost no	too few	poor	no	no questions asked
	1	some main points	few	some	some	reasonable	1	few	some	'some aspects fine	some	
2 — + short, apt and clear, well	2	main points	some	some correct	reasonable	fair	2_	some	some correct	good	reasonable	some incorrect, inconclusive or too long
prioritized, all time used	2	all relevant points	many	many correct	' fair	, efficient	2	· good	· many correct	some aspects efficient	fair	
NOTES:	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 show deep misconceptions

REVIEWER Start from 1 and add/s	ubtract ±	0-	Ø=[7								
QUESTIONS ASKED	REVIEW	OF REPOR	Т		REVIEW OF OPPO	SITION		DIS	CUSSION ANA	ALYSIS	MISSED POINTS	ANSWERS TO JURY
0 ——too few, mostly irrelevant	& unde	evaluation erstanding	pros & cons	prioritisation	speech evaluation	pros & cons	prioritisation		discussion evaluation	correct own opinions	POINTED OUT	QUESTIONS concise and correct or
relevant, meant to clarify unclear points	0 poor	r/wrong	irrelevant	no	0 poor/wrong	irrelevant	no	0	almost no	too few	-1 irrelevant	no questions asked
1 + suitably allotted to Rep & Opp, most time used	1 p	artial	partially relevant	some	1 too short/long	partially relevant	some	-	too short/long	some	0— none	some incorrect,
+ short, apt and clear, well prioritized,		good	mostly adequate	reasonable	2 informative, apt	mostly adequate	reasonable	-	relevant parts	many	relevant,	inconclusive or too long
time managed efficiently	3	tailed, emplex	fully adequate	good	condensed & accurate	fully adequate	good	2	conclusive	fully adequate	constructive	-2 — deeply incorrect or show deep misconceptions

NOTES:



Worm, Paul



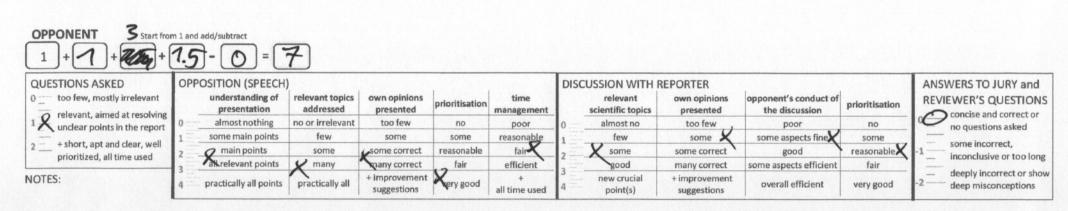
SCORESHEET
Stage: 4 Fight 2 Z, Problem: 15

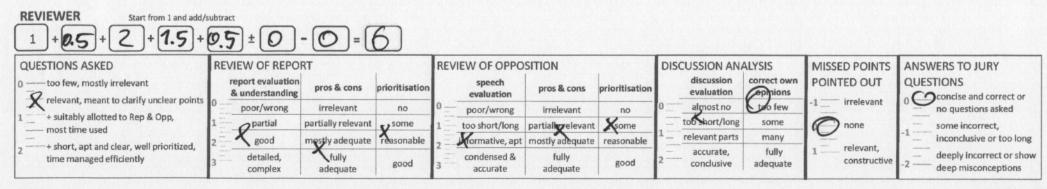
Iran: N. Whatib Poland: S. P.

Gymnasium Freistadt: A. Wafer back

PORT				1				DISCO	JSSION WITH OPP	UNENT	ANSWERS TO JURY,
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	science communication		relevant irguments/responses	reporter's conduct at the	OPPONENT, and REVIEWER'S QUESTIONS
	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	unclear, chaotic		irguments/responses	discussion,	REVIEWER 3 QUESTIONS
	some 🗸	some 🦇	some	some 🚜	review of sources, cited	partly	partly clear O	0	too few	poor	concise and correct or
	fair 🔨	fair	fair	not well fitting	some own input 🗸	average 🗶	average X		some \	some aspects fine	
	good	good	well performed, sufficient number		+ some interesting results	some aspects above average	some parts well done	=	many + data/theory	good some aspects	some incorrect,
	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	interesting solution	overall clear, demonstrative	2	onvincingly supported	efficient	inconclusive or too long
manual and a second	p and comprehensible, nows physical insight		+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	+ complex concepts well communicated	3 —	proved deep understanding	overall efficient	deep misconceptions

NOTES:





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IYPT - March 2019