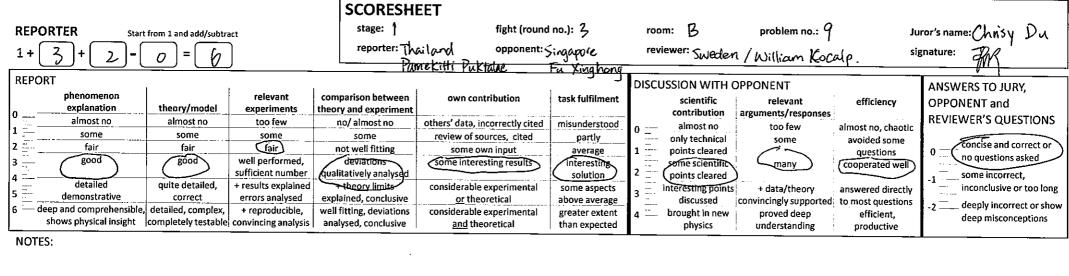


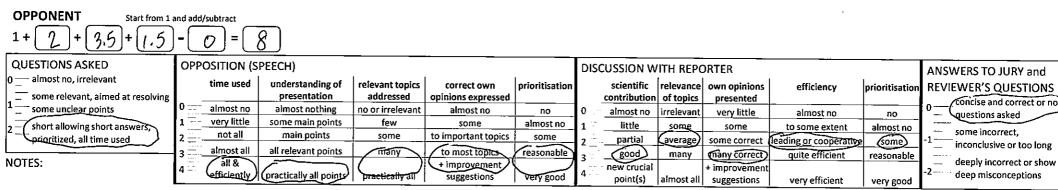
OPPONENT Start from 1 a	and add/subtract											
1+ 20+ 3.0+ 3.0	-0 = 9	7										
QUESTIONS ASKED	OPPOSITION (S	PEECH)				DIS	CUSSION W	ITH REPO	ORTER		<u>-</u>	ANSWERS TO JURY and
0 — almost no, irrelevant — some relevant, aimed at resolving	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation		scientific contribution		own opinions presented	efficiency	prioritisation	
some unclear points	0 - almost no	almost nothing	no or irrelevant	almost no	no	0	almost no	irrelevant	very little	almost no	no c	questions asked
2 - short allowing short answers,	1very little	some main points	few	some	almost no	1 "	little	some	some	to some extent	almost no	
prioritized, all time used	2 not all	main points	some	to important topics	some	2 –	partial	average	some correct	leading or cooperative	some	-1 some incorrect, inconclusive or too long
	3 almost all	all relevant points	many	to most topics	reasonable	3 -	good	many	many correct	quite efficient	reasonable	=
NOTES:	4 efficiently	practically all points	practically all	+ improvement suggestions	very good	4	new crucial	almost ail	+ improvement suggestions	very efficient	very good	-2 — deeply incorrect or show deep misconceptions

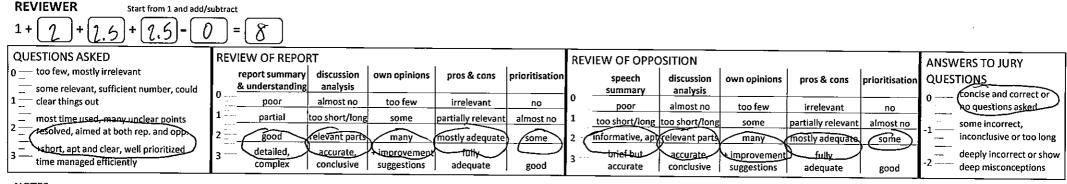
QUESTIONS ASKED	REV	IEW OF REPO	RT		_		RE۱	/IEW OF OPPO	SITION				ANSWERS TO JURY
) — too few, mostly irrelevant — some relevant, sufficient number, could		report summary & understanding		own opinions	pros & cons	prioritisation		speech summary	discussion analysis	own opinions	pros & cons	prioritisation	QUESTIONS
clear things out		poor	almost no	too few	irrelevant	no	0	poor	almost no	too few	irrelevant	no	no questions asked
most time used, many unclear points	1	partial	too short/long	some	partially relevant	almost no	1	too short/long	too short/long	some	partially relevant	almost no	some incorrect.
resolved, aimed at both rep. and opp.	2	good	rélevant parts	many	mostly adequate	some	2	informative, apt	relevant parts	many	mostly adequate	some	inconclusive or too lo
- (+short, apt and elear, well prioritized	3	detailed,	accurate,	+improvement	fully	\bigcup	,	brief but	accurate,	+ improvement	fully		deeply incorrect or st
time managed efficiently	i .	complex	conclusive	suggestions	adequate	good	3	accurate	conclusive	suggestions	adequate	good	-2 deep misconceptions

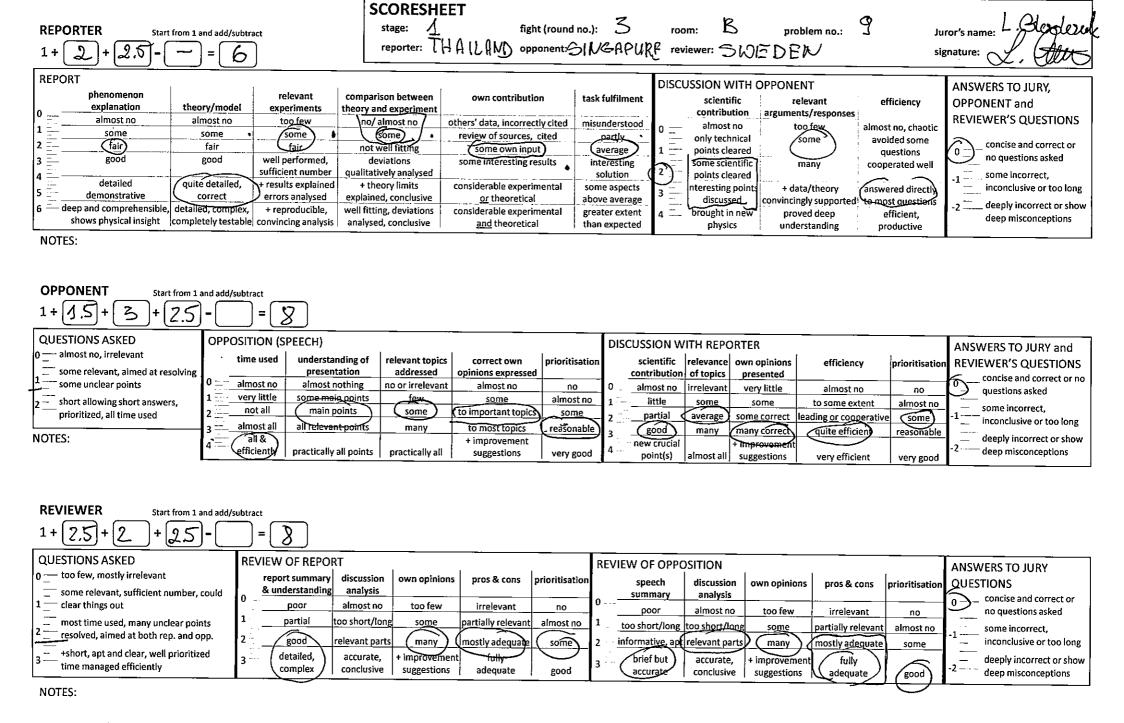
REVIEWER

Start from 1 and add/subtract









REPORTER Start fr $1 + \boxed{3.5} + \boxed{2.5} - \boxed{}$	om 1 and add/subtra	oct)	stage: { reporter: 7		no.): PF3 Singapore	room: B reviewer: Save	problem no.: G	<u>-</u> -	gnature: A 300lig
REPORT phenomenon explanation almost no some fair good k detailed demonstrative deep and comprehensible, completely shows physical insight NOTES:		relevant experiments too few some fair well performed, sufficient number + results explained errors analysed + reproducible, convincing analysis	comparison between theory and experiment no/ almost no some not well fitting deviations qualitatively analysed + theory limits explained, conclusive well fitting, deviations analysed, conclusive	others' data, incorrectly cited review of sources, cited	misunderstood partly average X interesting solution some aspects above average greater extent than expected	DISCUSSION WITH scientific contribution 1 — almost no only technical points cleared some scientific points cleared interesting point discussed brought in new physics	relevant arguments/responses too few some many + data/theory convincingly supported	almost no, chaotic avoided some questions cooperated well answered directly	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

SCORESHEET

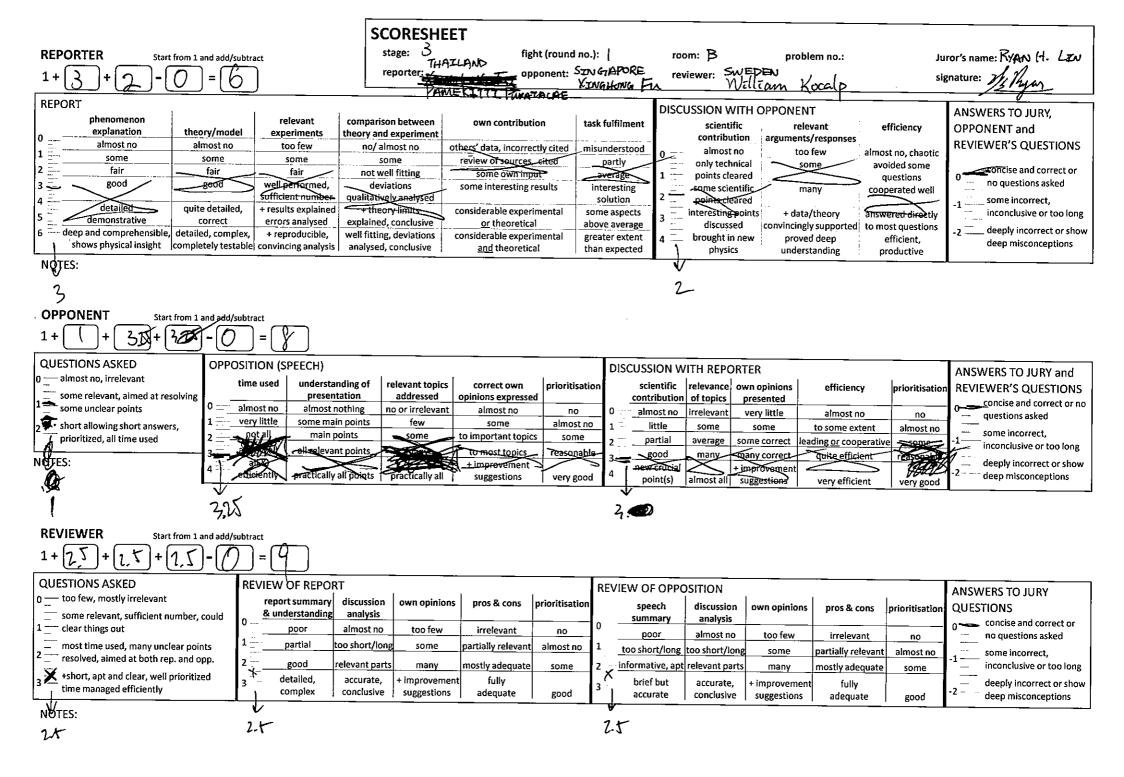
	OPPONENT Start from 1 a	and add	/subtract											
	1+2+3.5+3.5	-	= [/	0										
	QUESTIONS ASKED	OPP	OSITION (S	PEECH)				DIS	CUSSION W	ITH REPO	DRTER	-		ANSWERS TO JURY and
	0 almost no, irrelevant some relevant, aimed at resolving		time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation		scientific contribution		own opinions presented	efficiency	prioritisation	REVIEWER'S QUESTIONS concise and correct or no
	some unclear points	0 ==-	almost no	almost nothing	no or irrelevant	almost no	no	0	almost no	irrelevant	very little	almost no	no	0 —— questions asked
i	short allowing short answers,	1 =		some main points	few	some	almost no	1 😳	little	some	some	to some extent	almost no	some incorrect.
	prioritized, all time used	2	not all	main points	some	to important topics	some	2	partial	average	some correct	leading or cooperative	some	-1inconclusive or too long
	NOTES:	з =-		all relevant points	X many	to most topics	k easonable	3 V	good	many	many correct	X quite efficient	reasonable	l
	NOTES:	4 = -	all & { efficiently	practically all points	practically all	+ improvement suggestions	very good	4 Δ	new crucial point(s)		timprovement suggestions	very efficient	very good	deeply incorrect or show deep misconceptions

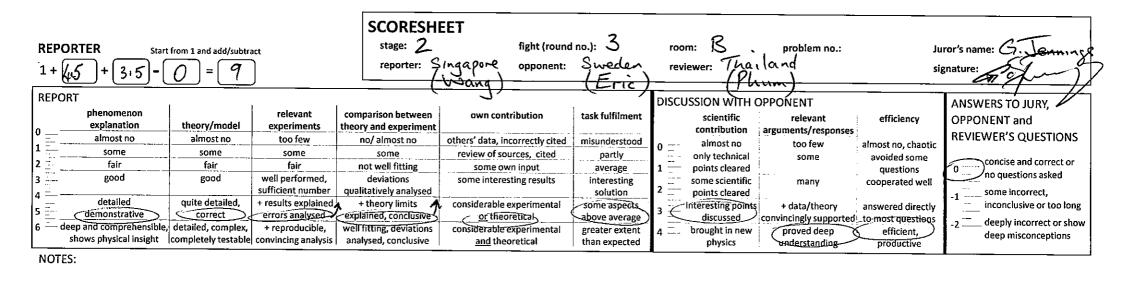
QUESTIONS ASKED	REVIEW OF REPO	RT	1		,	REVIEW C	OF OPPO	SITION				ANSWERS TO JURY
0 — too few, mostly irrelevant — some relevant, sufficient number, could	report summary & understanding	1	own opinions	pros & cons	prioritisation	74	eech nmary_	discussion analysis	own opinions	pros & cons	prioritisation	QUESTIONS
1 clear things out	poor	almost no	too few	irrelevant	no	U	oor	almost no	too few	irrelevant	no	no questions asked
most time used, many unclear points	1 partial	too short/long		partially relevant	almost no	1 _too sh	ort/long	too short/long	some	partially relevant	almost no	some incorrect,
resolved, aimed at both rep. and opp.	2 X good	relevant parts	many .	mostly adequate	X_{some}	2 Xinform	ative, apt	relevant parts	<u> </u>	றுostly adequate	some	inconclusive or too lor
+short, apt and clear, well prioritized	3 detailed,	accurate,	+ improvement	fully		y. brie	ef but	accurate,	+ improvement	fully		deeply incorrect or sh
time managed efficiently	complex	conclusive	suggestions	adequate	good	acc	urate	conclusive	suggestions	adequate	good	deep misconceptions

NOTES:

REVIEWER

Start from 1 and add/subtract





OPPONENT Start from 1 and add/subtract 8 3.0 2.5 QUESTIONS ASKED OPPOSITION (SPEECH) **DISCUSSION WITH REPORTER** ANSWERS TO JURY and almost no, irrelevant understanding of time used relevant topics correct own prioritisation. scientific relevance own opinions efficiency prioritisation REVIEWER'S QUESTIONS some relevant, aimed at resolving presentation addressed opinions expressed contribution of topics presented concise and correct or no almost no almost nothing some unclear points no or irrelevant almost no no almost no irrelevant very little almost no по questions asked very little some main points few almost no some short allowing short answers little some some to some extent almost no some incorrect, not all main points some to important topics some prioritized, all time used partial average some correct leading <u>or</u> cooperative some inconclusive or too long

reasonable

very good

good

new crucial

point(s)

many

almost all

many correct

+ improvement

suggestions

quite efficient

very efficient

reasonable

very good

deeply incorrect or show

deep misconceptions

to most topics

-improvement

suggestions

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

NOTES:

NOTES:

almost a

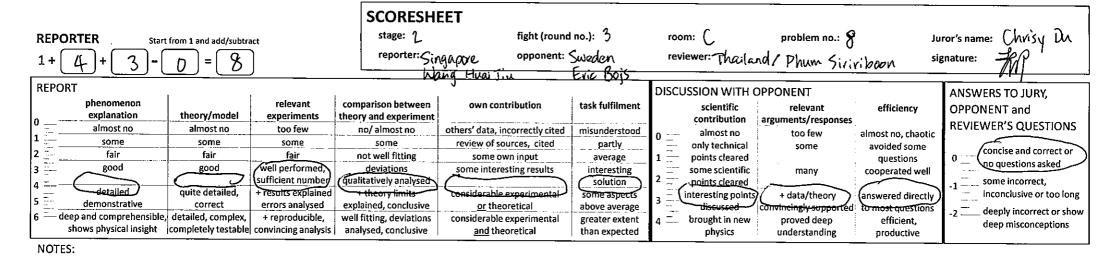
efficiently

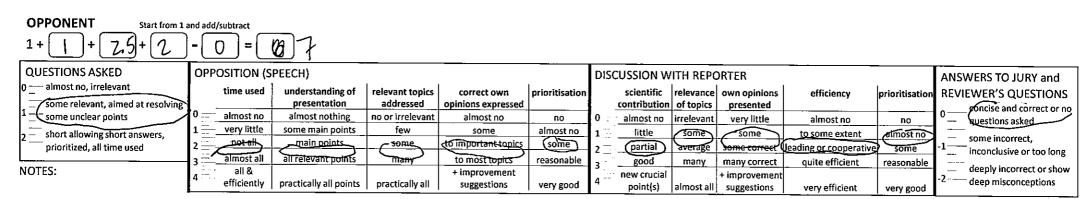
all-relevant points

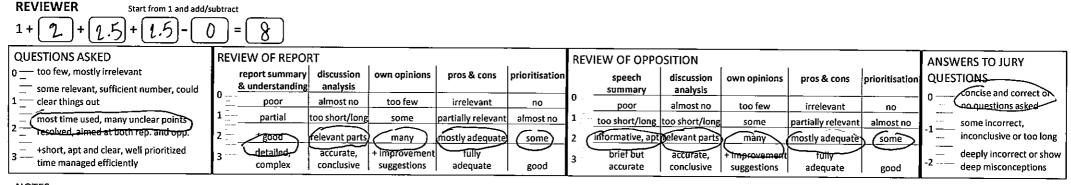
practically all points

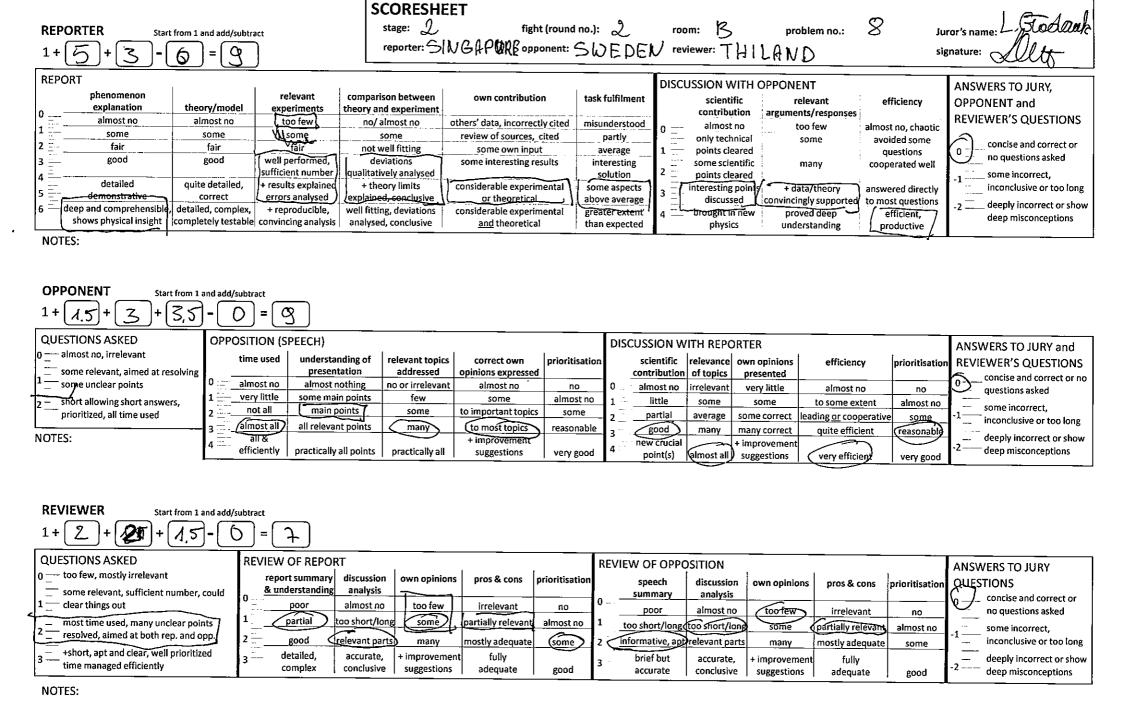
Triany

practically all









REPORTER Start	from 1 and add/subtra	act	stage: 2	fight	(round no.):	PFZ	room:	B	pro	blem no.: 🗧	3	Juror's name: Dina 💢
1+4+3-	0 = 8		reporter: 8	inga Pore oppo	onent: Sa	reden	reviewe	er: thou	iland			signature: A Jodi s
REPORT			<u> </u>			-	DISCUSSI	ON WITH		NIT		ANGWERS TO HIRV
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contributio	n task	t fulfilment		scientific ontribution	re	elevant nts/responses	efficiency	ANSWERS TO JURY, OPPONENT and
almost no	almost no	too few	no/ almost no	others' data, incorrect	ly cited misu	understood	-	almost no			almost no, chaoti	REVIEWER'S QUESTIONS
some	some	some	some	review of sources, o	ited	partly	- U	ly technical		some	avoided some	1
2 fair	fair	fair	not well fitting	some own input	: a	average	1 — po	ints cleared		:	questions	0 concise and correct or
3 — good	good	well performed,	deviations	some interesting re	/	teresting		me scientific	.,	many	cooperated well	no questions asked
4 X detailed	✓ quite detailed,	sufficient number	qualitatively analysed	X		olution		ints cleared	X		1,	some incorrect,
5 demonstrative	Correct	results explained errors analysed	+ theory limits explained, conclusive	considerable experim		ne aspects	3 - 0	resting points			answered directly	
6 — deep and comprehensible,		+ reproducible,	well fitting, deviations	considerable experim		ve average		discussed ought in new			to most question:	-2 deeply incorrect or snow
shows physical insight		convincing analysis	analysed, conclusive	and theoretical	-	ater extent n expected	4 Dro	physics		ved deep erstanding	efficient, productive	deep misconceptions
1 + 1-715 + 2-75 + QUESTIONS ASKED 0 — almost no, irrelevant - some relevant, aimed at res	from 1 and add/subtr	act =	iding of relevant topi ation addressed	cs correct own opinions expressed	prioritisation	scie	SION WITH entific rele ribution of t	vance own		efficiency	y prioritisat	ANSWERS TO JURY and ion REVIEWER'S QUESTIONS
some unclear points		ost no almost no y little some mair			no			evant ver	ry little	_ almost no	no no	questions asked
2 Short allowing short answer	s,	y little some mair ot all 😾 main po		some to important topics	almost no			me s	ome	to some ext	ent almost n	some incorrect.
prioritized, all time used		1/~			some v			- 1.		leading or coop		inconclusive or too long
NOTES:		ost all all relevan	t points X many	★ to most topics	A reasonable	3 X_8			y correct	X quite efficie	nt / reasonab	
NOTES.	1 -	ciently practically a	all points practically al	+ improvement l suggestions	very good	1	r crucial pint(s) alm		rovement gestions	very efficie	nt very goo	-2 deen misconceptions
1+2-5+1-75+	from 1 and add/subtr	= 7										
QUESTIONS ASKED	RE	VIEW OF REPOR	T		l i	REVIEW O	F OPPOSIT	ION				ANSWERS TO HIPV

pros & cons prioritisation

no

almost no

good

√ some

irrelevant

partially relevant

mostly adequate

fully

adequate

speech

summary

poor

brief but

accurate

too short/long too short/long

u informative, apticelevant parts

discussion

analysis

almost no

accurate,

conclusive

own opinions

too few

some

many

+ improvement

suggestions

pros & cons

irrelevant

partially relevant

mostly adequate

fully

adequate

prioritisation

no

almost no

good

乂some

ANSWERS TO JURY

o ____ concise and correct or

some incorrect,

no questions asked

deeply incorrect or show

deep misconceptions

inconclusive or too long

QUESTIONS

SCORESHEET stage. 4)

NOTES:

0 — too few, mostly irrelevant

time managed efficiently

1 ___ clear things out

some relevant, sufficient number, could

most time used, many unclear points

resolved, aimed at both rep, and opp. +short, apt and clear, well prioritized report summary

& understanding

poor

partial

good

detailed,

complex

discussion

analysis

almost no

too short/long

relevant parts

accurate,

conclusive

own opinions

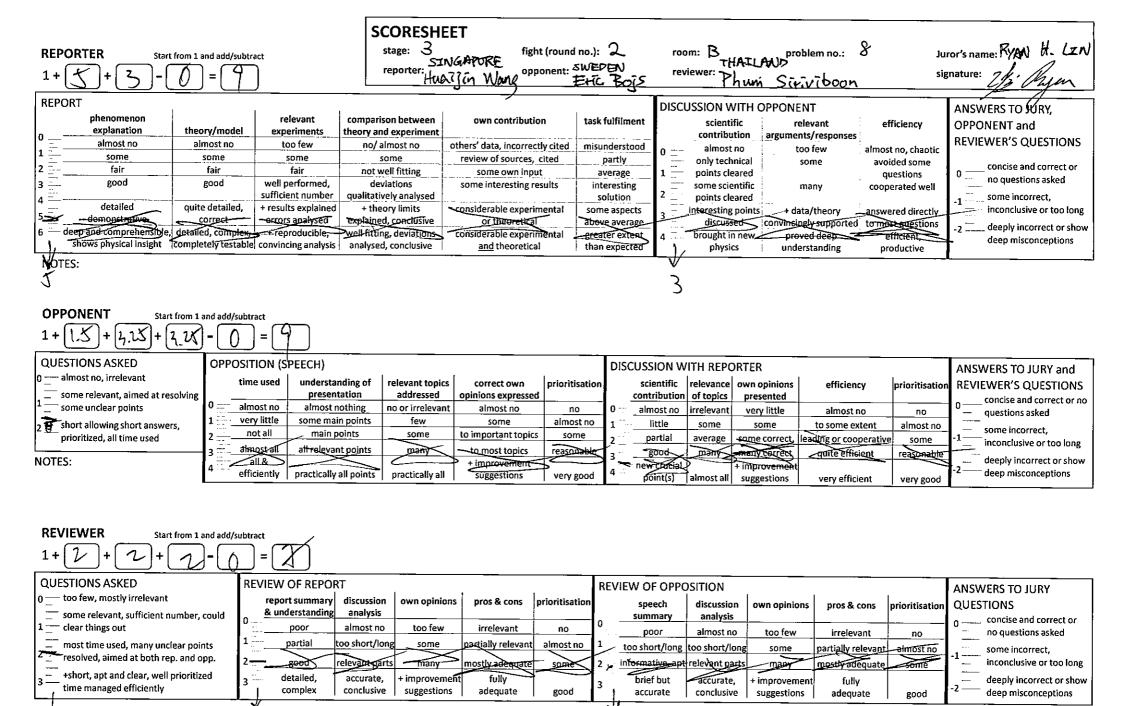
too few

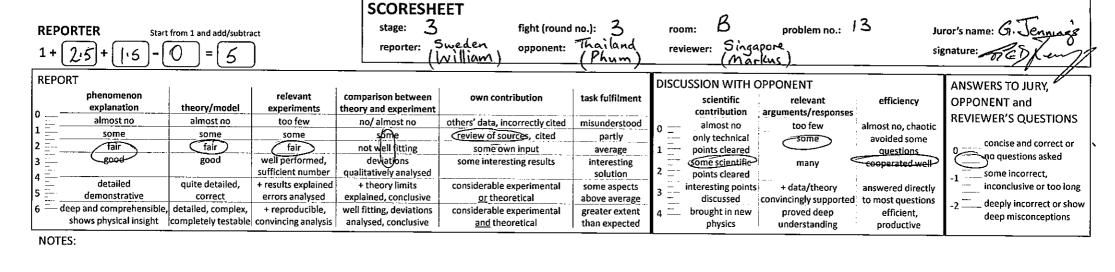
Ksome

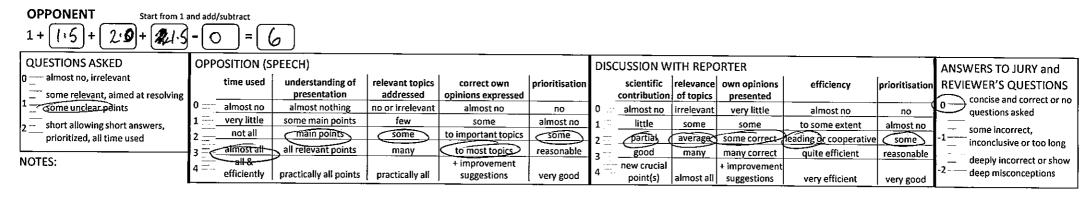
many

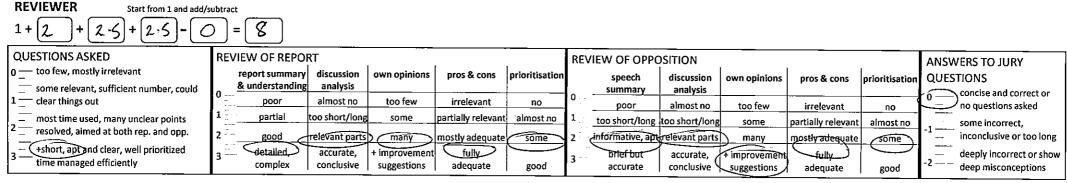
+ improvement

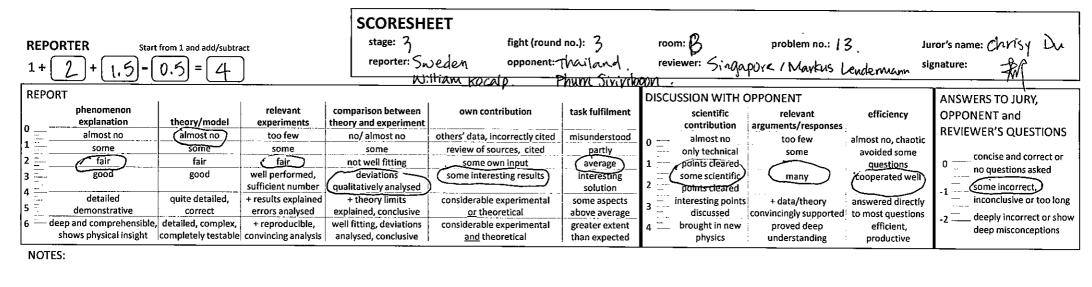
suggestions

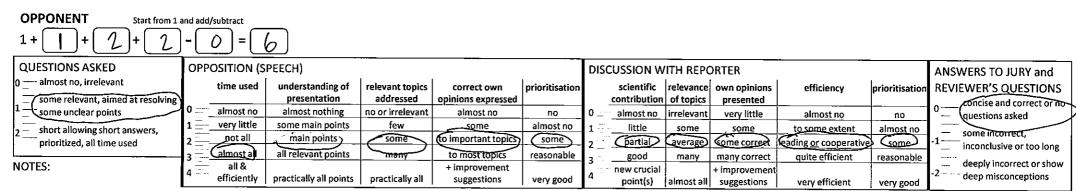


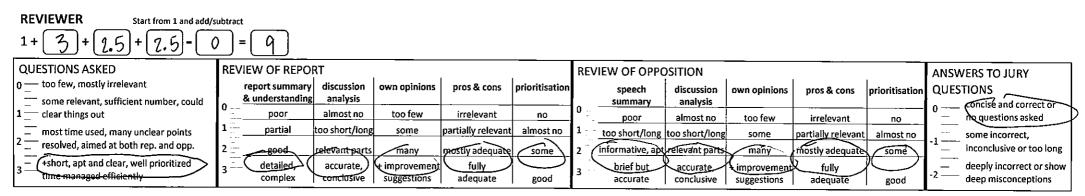












REPORTER Start 1 + (1.5) + (3.5) - (t from 1 and add/subtr	act	stage: 3 reporte	fight (round opponent:		room: K	problem no.: IGA PORE		ror's name: L. Stenderal
REPORT phenomenon explanation almost no some fair good detailed demonstrative deep and comprehensible, shows physical insight		relevant experiments too few some fair well performed, sufficient number + results explained errors analysed + reproducible, convincing analysis	comparison between theory and experiment no/almost no some not well fitting deviations qualitatively analysed + theory limits explained, conclusive well fitting, deviations analysed, conclusive	own contribution others' data, incorrectly cited review of sources, cited some own input some interesting results considerable experimental or theoretical considerable experimental and theoretical	misunderstood partly average interesting solution some aspects above average greater extent than expected	DISCUSSION WITH scientific contribution almost no only technical points cleared some scientific opoints cleared interesting points discussed brought in new physics	relevant arguments/responses too few some many	almost no, chaotic avoided some questions cooperated well	
OPPONENT Start 1 + () + () + (t from 1 and add/subtr	act = 5							

SCORESHEET

1+0+12+1,8	<u> -(0)=(5)</u>									
QUESTIONS ASKED almost no, irrelevant some relevant, aimed at resolving some unclear points short allowing short answers, prioritized, all time used NOTES:	OPPOSITION (SPEECH) time used understanding or presentation almost no almost nothing very little some main points not all main points almost all all relevant point all & efficiently practically all point	addressed no or irrelevant few some many	opinions expressed	prioritisation	almost no little partial good new crucial	relevance of topics irrelevant some average many	own opinions presented very little some correct many correct + improvement	almost no to some extent leading or cooperative quite efficient	no almost no	ANSWERS TO JURY and REVIEWER'S QUESTIONS concise and correct or no questions asked some incorrect, inconclusive or too long deeply incorrect or show deep misconceptions

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

NOTES:

REVIEWER

Start from 1 and add/subtract

	•	SCORESHEET
EPORTER	Start from 1 and add/subtract	stage: 3
		1

Start from 1 and add/subtract

reporter: Sweden

opponent: Thai and reviewer: Singapore

problem no.: 13

Juror's name: 'Dina Ladi

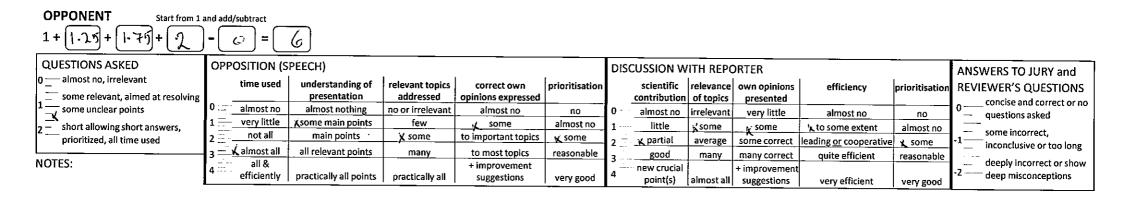
1+2+2-0=5

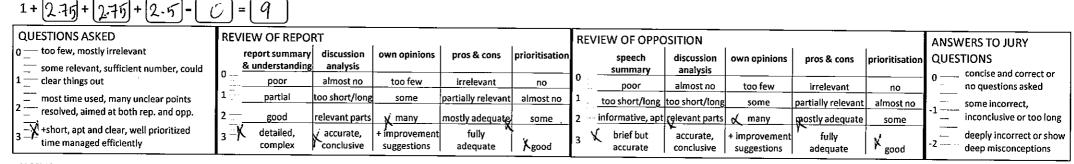
REPO	ORT						1
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	I
, <u></u>	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	ı
· ==.	some	some	some	⋌ some	review of sources, cited	partly	ľ
! <u></u>	fair	fair	r∕ fair	not well fitting	some own input	X average	ı
= <u>-</u>	good	∠ good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	l
=	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	
; ,		detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	١

DISCUSS	ION WITH C	OPPONENT	_
,	scientific ontribution	relevant arguments/responses	efficiency
0 <u> </u>	almost no nly technical	too few ∠ some	almost no, chaotic avoided some
sc	oints cleared me scientific	many	questions Xcooperated well
	oints cleared eresting points	•	answered directly
4 br	discussed ought in new physics	convincingly supported proved deep understanding	to most questions efficient, productive

	ANSWERS TO JURY,	
	OPPONENT and	
c	REVIEWER'S QUESTIONS	
	o concise and correct or no questions asked	
	-1 some incorrect,	
/	inconclusive or too long	
S .	-2 deeply incorrect or show	
	deep misconceptions	

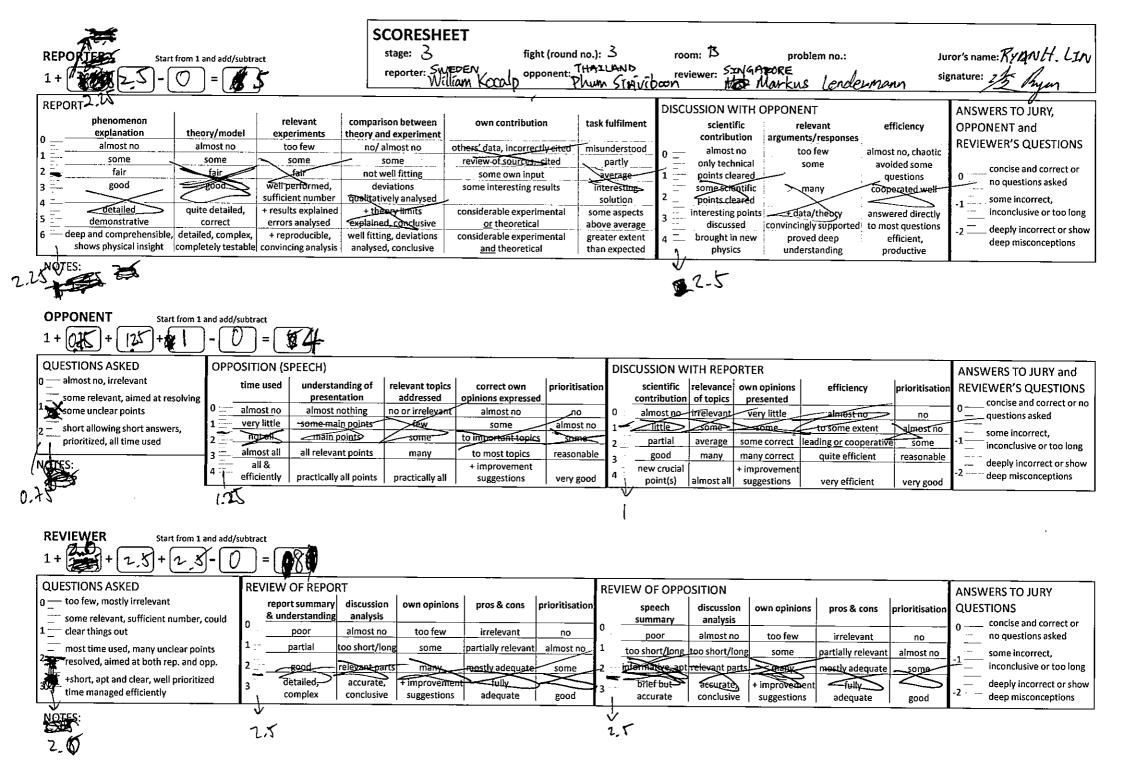
NOTES:





NOTES:

REVIEWER



14.7

Accepted Problem	Rejected Problems	Acting Team Member	Ry an Asiao-Tzu Lin	Dina Izadi	leszet Gladczyt	Chrisy Du	Gavin Jennings.	Juror	Team	:
9. Ball in	(Pamekitti Puktalae.	0	7	6	0	6	Rep	Thailand	
Latube		Ninghong Fu	8	10	∞	∞	۵	брр	Singupore	Stage 1
		william Kocalp.	٥	8	∞	8	∞	Rev	Sweden	
8. Visualishy		Warg Huaijin	_0	00	-0	8	_a	Řep	Singapore.	
		Eric Bojs	q	8	0	4	8	Opp	Sweden	Stage 2
Donsity.		Siriviboon Phum Sidikaan	4	4	77	<i>∞</i>	OB.	Rev	Thailand	
13. Reso		William Kocalp	~	V	4	4	5	Rep	Smeden	
resonating flo		Phum Siriviboon	4	0	5	6	8	Opp	Thouland	Stage 3
Glass		Markus Lendermann	Ø	_0	41	9	<i>∞</i>	Rev	Singapore	
								Rep		
								Opp		Stage 4
								Rev		