Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagr	Strongly Agree
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagree Disagree Neither Agree nor Disagree Strongly Disagree Disagree Neither Agree nor Disagree Strongly Disagree Strongly Disagree Disagree Strongly Disagree Disagree Neither Agree nor Disagree Strongly Disagree Strongly Disagree Disagree Strongly Disagree Disagree Strongly Dis	0
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagree Disagree Neither Agree nor Disagree Strongly Disagree Disagree Neither Agree nor Disagree Strongly Disagree Strongly Disagree Disagree Strongly Disagree Disagree Neither Agree nor Disagree Strongly Disagree Strongly Disagree Disagree Strongly Disagree Disagree Strongly Dis	0
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Disagree Disagr	0
biology background helps me do problems in physics class.	Strongly Agree
biology background helps me do problems in physics class.	Strongly Agree
biology background helps me do problems in physics class.	Strongly Agree
i.	
	\bigcirc
7. Time should not be taken out of physics courses to present biology. Strongly Disagree Disagree Neither Agree nor Disagree Agree	Strongly Agree
Strongly Disagree Disagree Neither Agree nor Disagree Agree S	Strongly Agree
2. Time should not be taken out of biology courses to present physics.	
	0
Strongly Disagree Disagree Neither Agree nor Disagree Agree	Strongly Agree

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0		O		
Physics is largely irr	elevant for understa	anding biological processes.		
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0	0	0	0	0
Mathematics helps n	ne make deeper sen	se of biological phenomena.		
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0	0	0	0	0
Math was idea anoth	ou way of docaribin	w hiele wisel who we would have well	aliv muavidaa a daama	
rstanding.	er way or describing	g biological phenomena, but rare	ely provides a deep	er or better
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0	0	O	0	0
ldeas I learned in ma	th are rarely useful	in biology.		
	Disagree	in biology. Neither Agree nor Disagree	Agree	Strongly Agree
			Agree	Strongly Agree
Strongly Disagree We use this statementuestion to preserve	Disagree o nt to discard survey your answers.	Neither Agree nor Disagree respondents who are not reading	Ong the questions. P	O lease select "Agree"
Strongly Disagree We use this statement of the preserve Strongly Disagree	Disagree O nt to discard survey	Neither Agree nor Disagree	ng the questions. P	0
Strongly Disagree We use this statemen	Disagree o nt to discard survey your answers.	Neither Agree nor Disagree respondents who are not reading	Ong the questions. P	O lease select "Agree"
Strongly Disagree We use this statement uestion to preserve Strongly Disagree	Disagree ont to discard survey your answers. Disagree	Neither Agree nor Disagree respondents who are not reading Neither Agree nor Disagree	Agree	lease select "Agree" Strongly Agree
We use this statement uestion to preserve Strongly Disagree	Disagree nt to discard survey your answers. Disagree	Neither Agree nor Disagree respondents who are not reading Neither Agree nor Disagree	ng the questions. P	O lease select "Agree"
Strongly Disagree We use this statement puestion to preserve Strongly Disagree	Disagree ont to discard survey your answers. Disagree	Neither Agree nor Disagree respondents who are not reading Neither Agree nor Disagree	Agree	lease select "Agree" Strongly Agree
We use this statement puestion to preserve Strongly Disagree It is beneficial to me, Strongly Disagree	Disagree ont to discard survey your answers. Disagree ont as a biologist, to a	Neither Agree nor Disagree respondents who are not reading Neither Agree nor Disagree	Agree	lease select "Agree" Strongly Agree
We use this statement uestion to preserve Strongly Disagree It is beneficial to me, Strongly Disagree	Disagree ont to discard survey your answers. Disagree ont as a biologist, to a	Neither Agree nor Disagree respondents who are not readir Neither Agree nor Disagree Uso be proficient in math. Neither Agree nor Disagree	Agree	lease select "Agree" Strongly Agree
We use this statemel uestion to preserve Strongly Disagree It is beneficial to me, Strongly Disagree	Disagree ont to discard survey your answers. Disagree onas a biologist, to a Disagree	Neither Agree nor Disagree respondents who are not readir Neither Agree nor Disagree lso be proficient in math. Neither Agree nor Disagree of biological phenomena.	Agree Agree	Strongly Agree Strongly Agree
We use this statemel uestion to preserve Strongly Disagree Strongly Disagree Equations help me means of the strongly Disagree	Disagree Disagree Disagree Disagree Disagree Disagree Disagree Disagree Disagree	Neither Agree nor Disagree respondents who are not readir Neither Agree nor Disagree lso be proficient in math. Neither Agree nor Disagree of biological phenomena.	Agree Agree	Strongly Agree Strongly Agree
We use this statement puestion to preserve Strongly Disagree It is beneficial to me, Strongly Disagree	Disagree Disagree Disagree Disagree Disagree Disagree Disagree Disagree Disagree	Neither Agree nor Disagree respondents who are not readir Neither Agree nor Disagree lso be proficient in math. Neither Agree nor Disagree of biological phenomena.	Agree Agree	Strongly Agree Strongly Agree

Q18. Numerical calculation	is are rarely userul	in biology.		
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Oliongly Disagree	Disagree	Notifier Agree for Bloagree	/ igicc	Ollongly rigide
Q19 Numerical calculation	ns heln me make de	eper sense of biological phenor	mena	
475. Humerical calculation	15 Help IIIe IIIake ac	eper serise or biological priction		
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		\circ		
Q20. Equations help me m	ake deeper sense d	of physical phenomena.		
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0		0		<u> </u>
Q21. Equations are rarely	useful in physics.			
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
O Carongry Disagree		C C C C C C C C C C C C C C C C C C C	, ignor	O. C. Ig. G.
0		0		0
Q22. Numerical calculation	ns are rarely useful	in physics.		
	-			
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
			\circ	\circ
O22 Numorical calculation	se holn mo mako da	eper sense of physical phenom	ona	
Q23. Numerical calculation	is help the make de	seper sense or physical phenom	Gila.	
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		0		
Q24. Simple models are us	seful in physics.			
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	Ô			
0		0	0	<u> </u>
Q25. Simple models are us	seful in biology.			
Strongly Disagroo	Disagroo	Neither Agree per Disagree	Agroo	Strongly Agree
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		0		
Q26 To help you solve a p	rohlem in physics	you sometimes need to leave o	ut details	
	. coloin in physics,	Joa Sometimes need to leave of	at actuild.	
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		\circ		

Disagree	Neither Agree nor Disagree escribe with an equation. Neither Agree nor Disagree	Agree	Strongly Agree Strongly Agree
Disagree	<u>-</u>	-	Strongly Agree
Disagree	<u>-</u>	-	Strongly Agree
Disagree	<u>-</u>	-	Strongly Agree
	0	0	\circ
complex to d			
	escribe with an equation.		
Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0	0	0	0
sics are done	without a good reason.		
Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
\bigcirc	0	\circ	\circ
logy are done Disagree	without a good reason. Neither Agree nor Disagree	Agree	Strongly Agree
	<u>-</u>		
Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
0	O .	Ü	
on in a biolo	amaklam langut the see to b		
on in a biology	y problem, I want there to be a go	ood reason for doir	ng so. Strongly Agree
	psics are done Disagree Ology are done Disagree	rsics are done without a good reason. Disagree Neither Agree nor Disagree Rogy are done without a good reason. Disagree Neither Agree nor Disagree On in a physics problem, I want there to be just	rsics are done without a good reason. Disagree Neither Agree nor Disagree Agree Rogy are done without a good reason. Disagree Neither Agree nor Disagree Agree On in a physics problem, I want there to be justified good reason