

Identification Label _____

Student ID:

Student Name:

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

TIMSS Advanced

2008

Student Questionnaire

Physics

<TIMSS Advanced National Research Center Name>

<Address>



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General Directions

In this questionnaire, you will find questions about yourself. Some questions ask for facts while other questions ask for your opinions.

Read each question carefully and answer as accurately as possible. You may ask for help if you do not understand something or are not sure how to respond.

Each question is followed by a number of answers. Fill in the circle next to the answer of your choice as shown in the example below.

Example

How often do you do these things?

Fill in **one** circle for each line

	Every day	At least once a week	Once or twice a month	A few times a year	Never
	↓	↓	↓	↓	↓
a) I listen to music -----	①	②	●	④	⑤
b) I talk with my friends -----	●	②	③	④	⑤
c) I play sports -----	①	●	③	④	⑤

Read each question carefully, and pick the answer you think is best. Fill in the circle next to or below your answer. If you decide to change an answer to a question, put an “x” over your first choice, and then fill in the circle for your new choice. Ask for help if you do not understand something or are not sure how to answer.

Thank you for your time, effort, and thought in completing this questionnaire.

About You

1

When were you born?

A. Fill in the circle next to the year you were born

Year

1986 -

1987 -

1988 -

1989 -

1990 -

1991 -

1992 -

1993 -

Other -

B. Fill in the circle next to the month you were born

Month

January -

February -

March -

April -

May -

June -

July -

August -

September -

October -

November -

December -

2

Are you a female or a male?

Fill in **one** circle only

Female -----

Male -----

3

How often do you speak <language of test> at home?

*Fill in **one** circle only*

- Always ----- ①
- Almost always ----- ②
- Sometimes ----- ③
- Never ----- ④

4

About how many books are there in your home? (Do not count magazines, newspapers, or your school books.)

*Fill in **one** circle only*

- None or very few
(0-10 books)----- ①
- Enough to fill one shelf
(11-25 books)----- ②
- Enough to fill one bookcase
(26-100 books)----- ③
- Enough to fill two bookcases
(101-200 books)----- ④
- Enough to fill three or more bookcases
(more than 200 books)----- ⑤

About You (Continued)

5

Do you have any of these things at your home?

Fill in **one** circle for each line

Yes

No



- a) Computer (do not include PlayStation®, GameCube®, XBox®, or other TV/video game computers) - ① ----- ②
- b) Internet connection ----- ① ----- ②
- c) Your own computer ----- ① ----- ②
- d) Your own graphing calculator ----- ① ----- ②
- e) Study desk/table for your use ----- ① ----- ②
- f) <country-specific> ----- ① ----- ②
- g) <country-specific> ----- ① ----- ②
- h) <country-specific> ----- ① ----- ②
- i) <country-specific> ----- ① ----- ②

6

A. What is the highest level of education completed by your mother (or stepmother or female guardian)?

*Fill in **one** circle only*

- Some <ISCED Level 1 or 2 > or did not go to school ----- ①
- <ISCED 2>----- ②
- <ISCED 3>----- ③
- <ISCED 4>----- ④
- <ISCED 5B> ----- ⑤
- <ISCED 5A, first degree> ----- ⑥
- Beyond <ISCED 5A, first degree> ----- ⑦
- I don't know ----- ⑧

B. What is the highest level of education completed by your father (or stepfather or male guardian)?

*Fill in **one** circle only*

- Some <ISCED Level 1 or 2 > or did not go to school ----- ①
- <ISCED 2>----- ②
- <ISCED 3>----- ③
- <ISCED 4>----- ④
- <ISCED 5B> ----- ⑤
- <ISCED 5A, first degree> ----- ⑥
- Beyond <ISCED 5A, first degree> ----- ⑦
- I don't know ----- ⑧

About You (Continued)

7

A. Was your mother (or stepmother or female guardian) born in <country>?

Yes No
↓ ↓

Fill in **one** circle only ----- ① ----- ②

B. Was your father (or stepfather or male guardian) born in <country>?

Yes No
↓ ↓


Fill in **one** circle only ----- ① ----- ②

8

A. Were you born in <country>?

Yes No
↓ ↓

Fill in **one** circle only ----- ① ----- ②

If **Yes**, please go to question 9 

B. If you were not born in <country>, how old were you when you came to <country>?

Fill in **one** circle only

Older than 10 years old ----- ①

5 to 10 years old ----- ②


Younger than 5 years old ----- ③

9

After <secondary school>, do you intend to continue your education?

Fill in **one** circle only

- Yes ----- ①
- Yes, but not immediately ----- ②
- No ----- ③

If **No**, please go to question **11** 

10

If you plan to continue your education, which of the following comes closest to the area you intend to study most?

Fill in **one** circle only

- a) SCIENCE (e.g., physics, chemistry, biological, earth sciences) ----- ①
- b) HEALTH SCIENCES (e.g., dentistry, medicine, pharmacy, veterinary medicine) ----- ②
- c) ENGINEERING (e.g., chemical engineering, civil engineering, electrical engineering, mechanical engineering) ----- ③
- d) BUSINESS (e.g., accounting, marketing, finance, administration, management) ----- ④
- e) COMPUTER and INFORMATION SCIENCES (e.g., systems analyst) --- ⑤
- f) MATHEMATICS (e.g., calculus, statistics) ----- ⑥
- g) SOCIAL SCIENCES (e.g., psychology, economics, sociology, law) ----- ⑦
- h) OTHER FIELD OF STUDY ----- ⑧

Using Computers

11

A. How much time each day, on average, do you spend using a computer? (Do not include PlayStation®, GameCube®, XBox®, or other TV/video game computers.)

	No time	Less than 1 hour	1-2 hours	More than 2 but less than 4 hours	4 or more hours
	↓	↓	↓	↓	↓
Fill in one circle only -----	①	②	③	④	⑤

If **No Time**, please go to question 12



B. Where do you use a computer?

Fill in **one** circle for each line

	A lot	Sometimes	Never
	↓	↓	↓
a) At home -----	①	②	③
b) At school -----	①	②	③
c) Elsewhere (e.g., public library, friend's home, Internet café) -----	①	②	③

C. When you use a computer for your schoolwork, what do you use it for?

Fill in **one** circle for each line

	Yes	No
	↓	↓
a) Researching information from the Internet -----	①	②
b) Word processing -----	①	②
c) Analyzing and presenting data (e.g., spreadsheets, graphing) -----	①	②
d) Using specialized programs (e.g., simulations, algebra programs) -----	①	②
e) Other -----	①	②

Things You Do Outside of School

12

On a normal school day, how much time, on average, do you spend before or after school doing each of these things?

Fill in **one** circle for each line

	No time	Less than 1 hour	1-2 hours	More than 2 but less than 4 hours	4 or more hours
	↓	↓	↓	↓	↓
a) I do schoolwork (study or homework) -----	① -----	② -----	③ -----	④ -----	⑤ -----
b) I take part in organized activities (e.g., sports, music, clubs, community service, etc.) -----	① -----	② -----	③ -----	④ -----	⑤ -----
c) I use a computer for things other than schoolwork (e.g., messaging, email, gaming, music, etc.) -----	① -----	② -----	③ -----	④ -----	⑤ -----
d) I spend time with friends -----	① -----	② -----	③ -----	④ -----	⑤ -----
e) I work at a paid job -----	① -----	② -----	③ -----	④ -----	⑤ -----
f) I watch movies or television -----	① -----	② -----	③ -----	④ -----	⑤ -----

Physics in School

13

Why are you studying physics?

Please indicate how important each reason was for you.

Fill in **one** circle for each line

- | | Very
important
↓ | Important
↓ | Unimportant
↓ | Very
unimportant
↓ |
|--|------------------------|----------------|------------------|--------------------------|
| a) I enjoy conducting experiments or investigations for physics ----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| b) I usually do well in physics ----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| c) Physics lessons are interesting ----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| d) Studying or doing physics homework does not take me a lot of time----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| e) I need physics to pursue the career of my choice----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| f) Physics has good teachers----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| g) My parents advised me to study physics ----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| h) I expect that I will easily pass the tests----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| i) I like the way physics is taught in my school ----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| j) Studying physics will give me more options after finishing <secondary school> ----- | ① ----- | ② ----- | ③ ----- | ④ ----- |
| k) A teacher advised me to study physics | ① ----- | ② ----- | ③ ----- | ④ ----- |
| l) My friends also are studying physics - | ① ----- | ② ----- | ③ ----- | ④ ----- |
| m) The <study coordinator/mentor> of my school advised me to study physics----- | ① ----- | ② ----- | ③ ----- | ④ ----- |

14

A. How much time do you spend in physics class each week?

Write in the number of **minutes**

Please convert the number of classes/periods into minutes.

B. Are you taking or have you taken <the advanced mathematics track/course that defines the advanced mathematics population>?

Yes No
↓ ↓

Fill in **one** circle only ----- ① ----- ②

15

How often do you do these activities in your physics lessons?

Fill in **one** circle for each line

Every or almost every lesson About half the lessons Some lessons Never
↓ ↓ ↓ ↓

- a) We listen to the teacher present new material ----- ① ----- ② ----- ③ ----- ④
- b) We work problems on our own ----- ① ----- ② ----- ③ ----- ④
- c) We work on problems together with other students-- ① ----- ② ----- ③ ----- ④
- d) We review what has been taught ----- ① ----- ② ----- ③ ----- ④
- e) We review homework ----- ① ----- ② ----- ③ ----- ④
- f) We have oral or written tests or quizzes ----- ① ----- ② ----- ③ ----- ④

Physics in School (Continued)

16

How often do you do the following in your physics lessons?

Fill in **one** circle for each line

- | | Every or
almost
every
lesson
↓ | About
half the
lessons
↓ | Some
lessons
↓ | Never
↓ |
|---|--|-----------------------------------|----------------------|------------|
| a) We watch the teacher demonstrate an experiment or investigation----- | ①----- | ②----- | ③----- | ④ |
| b) We conduct an experiment or investigation----- | ①----- | ②----- | ③----- | ④ |
| c) We use laws and formulas of physics to solve problems----- | ①----- | ②----- | ③----- | ④ |
| d) We give explanations about what we are studying----- | ①----- | ②----- | ③----- | ④ |
| e) We relate what we are learning in physics to our daily lives----- | ①----- | ②----- | ③----- | ④ |
| f) We memorize formulas and procedures of physics----- | ①----- | ②----- | ③----- | ④ |
| g) We read our physics textbooks and other resource materials----- | ①----- | ②----- | ③----- | ④ |
| h) We watch the teacher demonstrate physics on a computer----- | ①----- | ②----- | ③----- | ④ |

A. How often do you use the following in your physics lessons?

Fill in **one** circle for each line

- | | Every or
almost
every
lesson
↓ | About
half the
lessons
↓ | Some
lessons
↓ | Never
↓ |
|-------------------------------------|--|-----------------------------------|----------------------|------------|
| a) Calculator ----- | ① | ② | ③ | ④ |
| b) Computer ----- | ① | ② | ③ | ④ |
| c) Other computing technology ----- | ① | ② | ③ | ④ |

B. If you use a calculator in your physics lessons, what kind of calculator do you usually use?

Fill in **one** circle only

- Simple calculator – basic functions only
(+, −, ×, ÷, %, or $\sqrt{\quad}$), without functions
like log, sin, cos ----- ①
- Scientific calculator – basic functions
(+, −, ×, ÷, %, or $\sqrt{\quad}$) and also functions
like log, sin, cos ----- ②
- Graphing calculator – scientific and also
able to display some graphs ----- ③
- Symbolic calculator – graphing and also
able to solve expressions in symbolic terms ----- ④

Homework

18

A. How much time do you spend doing physics homework assignments each week?

Write in the number of **minutes**

Please convert the number of hours into minutes.

B. When doing physics homework, how often do you do each of the following?

Fill in **one** circle for each line

- | | Always or
almost
always | Sometimes | Never or
almost
never |
|---------------------------------------|-------------------------------|-----------|-----------------------------|
| | ↓ | ↓ | ↓ |
| a) Problem/question sets ----- | ① ----- | ② ----- | ③ |
| b) Read the textbook----- | ① ----- | ② ----- | ③ |
| c) Memorize formulas and procedures - | ① ----- | ② ----- | ③ |

19

How often do you use a computer to work on physics outside of class?

Fill in **one** circle only

- Almost every day ----- ①
- Once or twice a week ----- ②
- About once a month ----- ③
- Never or almost never ----- ④

20

How often do you work with a physics tutor?

*Fill in **one** circle only*

- More than once a week ----- ①
- About once a week ----- ②
- About once a month ----- ③
- Once in a while when I need extra help --- ④
- Never ----- ⑤

21

How often do you prepare for a physics test or examination?

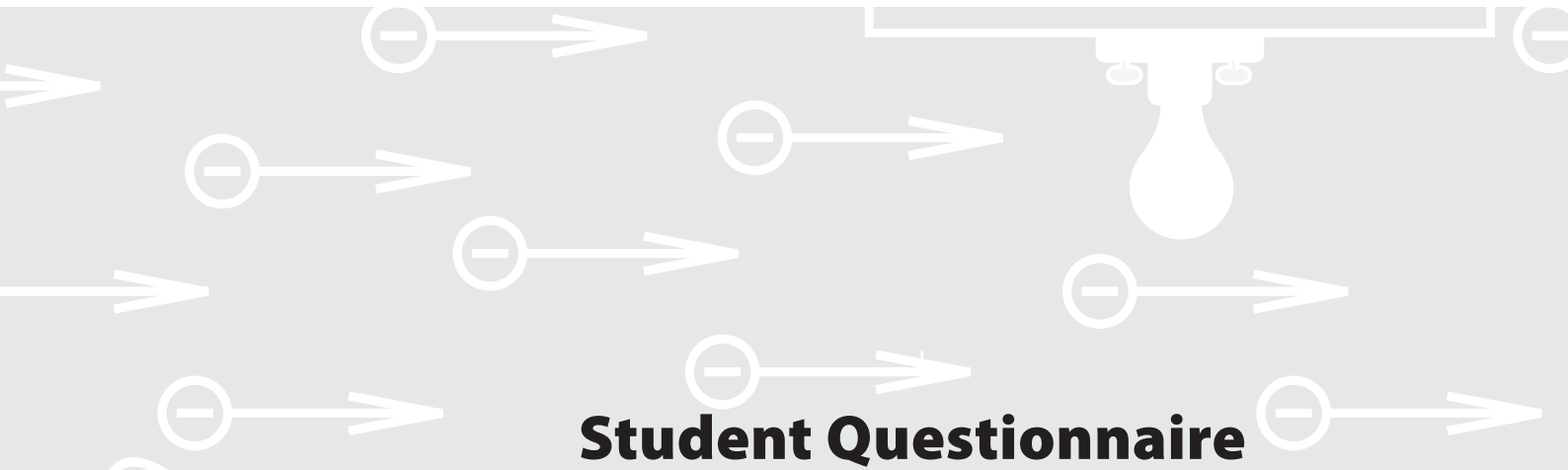
*Fill in **one** circle only*

- About once a week ----- ①
- About once a month ----- ②
- About 5 times a year ----- ③
- About twice a year ----- ④
- Never ----- ⑤

Thank You
for completing
this questionnaire



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Student Questionnaire

