



Identification Label

**TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY**

## Q e a e A d a c e d M a e a c

Your school has agreed to participate in TIMSS Advanced 2015 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS Advanced measures trends in student achievement in advanced mathematics and physics and studies differences in national education systems in order to help improve teaching and learning worldwide.

This questionnaire is addressed to teachers of <twelfth grade> students, and seeks information about teachers' academic and professional backgrounds, classroom resources, instructional practices, and attitudes toward teaching. Since your class has been selected as part of a nationwide sample, your responses are very important in helping to describe the school system in <country>.

Some of the questions in the questionnaire refer to the "TIMSS c a " or "  c a ". This is the class that is identified on the front of this booklet, and which will be tested as part of TIMSS Advanced in your school. It is important that you answer each question carefully so that the information that you provide reflects your situation as accurately as possible.

Since TIMSS Advanced is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in <country>. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the studies.

# TIMSS ADVANCED 2015

**B e e d f c ea, a ea a e b e e a c a e e ?**

\_\_\_\_\_ years  
Pea ero nd e ea e e be.

**A e fe a e a e?**

C ec one c ce .

--- A

--- A

**H da e ?**

C ec one c ce .

--- A

--- A

--- A

--- A

--- A

--- A

**W a e e e e e f f a ed ca a ec e ed?**

C ec one c ce .

--- A \_\_\_\_\_

(If a e c e ed < e > ed ca , #6)

--- A

--- A

--- A

--- A

**D < - ec da > ed ca , a a a a a ea( ) f d ?**

C ec one c cef eac e.

Yes

No

) ----- A - A

) ----- A - A

) ----- A - A

) ----- A - A

) ----- A - A

) ----- A - A

) ----- A - A

) ----- A - A

) ----- A

T    ab c e c ,    e e  
e e  a ee   ee  eac f  
ef  a e  e .

C ec **one** c cef eac e.

Agree a lot

Agree a little

Disagree a little

Disagree  
a lot

)

----- A - A - A - A

I c e c , e e e eac b e ?

C ec **one** c cef eac e.

**Not a problem**

**Minor problem**

**Moderate problem**

**Serious  
problem**

) . \_\_\_\_\_

H f e d fee ef ☒ a  
 ab be☒ a eac e ?

C ec **one** c cef eac e.

Very often  
 Often  
 Sometimes  
 Never or almost never

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

I d☒a e ee e ☒ a ee d☒a ee  
 ☒ eac f ef ☒ a e☒e .

C ec **one** c cef eac e.

Agree a lot  
 Agree a little  
 Disagree a little  
 Disagree a lot

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

) ----- A - A - A - A

H a de a e ca ?

\_\_\_\_\_ students  
W e e be.

H a de ca e e ce  
d c de a d e < a a e f  
e >?

\_\_\_\_\_ students in this class  
W e e be.

H f e d d e f eac ca ?

C ec **one** c ef eac e.

Every or almost every lesson

About half the lessons

Some lessons

Never

) ----- A

I a a ee, c ed ed  
 eac ad a ced a e a e de   
ca ?

\_\_\_\_\_ minutes per week  
 W e e be f e e ee.  
 Pea ec e e be f c a e d  
 e.

H a  e e ee d a e d  
 e a  eac ca ?

\_\_\_\_\_ minutes per week  
 W e e be f e e ee.  
 Pea ec e e be f e.

I eac ad a ced a e a ca ,  
 d c a ac e e c de ce   
 d ef  ?

C ec **one** c ef eac e.





A. D e d e    ☒    ☒ca    a e c ☒    e ,  
a b e , c a c a ,    ☒ a    e a a ☒ b e  
e d    ☒    e ☒ a d a c e d ☒ a e ☒ a ☒ e    ?

C e c *o n e* c c e .

--- A

--- A \_\_\_\_\_

(If No, go to #21)

B. H    f e d    a e e    d e    d    e

The following table shows the percentage of teachers who reported that they had used each of the following mathematics topics in their classrooms during the 2011-12 school year. The data are based on the TIMSS Advanced mathematics questionnaire. If a teacher reported that they had used a topic in their classroom during the 2011-12 school year, they were asked to indicate whether they had used the topic mostly before this year, mostly this year, or not yet taught or just introduced.

C e c **one** c c e f e a c e.

Mostly taught before this year

Mostly taught this year

Not yet taught or just introduced

**A. Algebra**

1. Solving linear equations in one variable	_____	A	—	A	—	A
2. Solving systems of linear equations in two variables	_____	A	—	A	—	A
3. Solving quadratic equations in one variable	_____	A	—	A	—	A
4. Solving systems of quadratic equations in two variables	_____	A	—	A	—	A
5. Solving rational equations in one variable	_____	A	—	A	—	A
6. Solving systems of rational equations in two variables	_____	A	—	A	—	A
7. Solving exponential equations in one variable	_____	A	—	A	—	A
8. Solving systems of exponential equations in two variables	_____	A	—	A	—	A

**B. Calculus**

1. Differentiating functions	_____	A	—	A	—	A
2. Integrating functions	_____	A	—	A	—	A
3. Finding the area under a curve	_____	A	—	A	—	A
4. Finding the volume of a solid	_____	A	—	A	—	A
5. Finding the length of an arc	_____	A	—	A	—	A
6. Finding the surface area of a solid	_____	A	—	A	—	A
7. Finding the volume of a solid	_____	A	—	A	—	A

**C. Geometry**

1. Proving geometric theorems	_____	A	—	A	—	A
2. Finding the area of a polygon	_____	A	—	A	—	A
3. Finding the volume of a solid	_____	A	—	A	—	A
4. Finding the length of an arc	_____	A	—	A	—	A

C. H f e d d e f ☒ ☒ e  
☒ a e ☒ a ☒ ☒ e a ☒ ☒ e f ☒  
c a ?

C ec **one** c c e f e a c e.

Always or almost always

Sometimes

Never or  
almost never

)

---A---

I e a ea , a e a a ed  
 fe a de e e a f e  
 f ?

C ec **one** c cef eac e.

Yes

No

) \_ ----- A - A

) \_ ----- A - A

) \_ ----- A - A

) ----- A - A

) ----- A - A

) \_ ----- A - A

) ----- A - A

• •  
     
 e       c







