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General Directions

The TIMSS Advanced 2008 Curriculum Questionnaire for Advanced Mathematics is designed to collect information about the organization, content, and implementation of the intended advanced mathematics curriculum in each country. The questionnaire should be completed by the National Research Coordinator, drawing on the expertise of curriculum specialists and educators.

Your responses are very important for us in interpreting the student achievement and background information collected in other parts of the study. Thank you very much for the time and effort you have put into responding to this questionnaire.

Contact Information

Country: _____

Name of Person
Completing This
Questionnaire: _____

Position: _____

Address: _____

Email: _____

Phone: _____

Fax: _____

Advanced Mathematics Curriculum and Instruction

1. a) In what year was the current curriculum implemented? (i.e., the curriculum that covers the advanced mathematics track or course being assessed in TIMSS Advanced)

Comments:

- b) Is that curriculum currently being revised?

*Check **one** circle only.*

Yes---

No---

If Yes...

Please explain:

If No...

Comments:

2. a) Are there any prerequisite courses for students taking the advanced mathematics track or course being assessed in TIMSS Advanced?

*Check **one** circle only.*

Yes---

No---

If Yes...

Please explain:

- b) Regardless of whether or not the students currently are enrolled in the advanced mathem

3. a) Does the national curriculum contain statements/policies about the use of calculators by students in the advanced mathematics track or course being assessed in TIMSS Advanced?

*Check **one** circle only.*

Yes---

No---

If Yes...

What are the statements/policies?

If No...

Comments:

b) *If Yes...*

Does the policy address requirements for the types of calculators that may be used?

*Check **one** circle only.*

Yes---

No---

If Yes...

Describe the types of calculators (e.g., graphing, symbolic):

If No...

Comments:

c) Are students permitted to use calculators in national examinations?

*Check **one** circle only.*

Yes---

No---

If Yes...

Describe the policy and the types of calculator(s) allowed (e.g., graphing, symbolic):

d) Who pays for the calculators?

4. Does the national curriculum contain statements/policies about the use of computers by students in the advanced mathematics track or course being assessed in TIMSS Advanced?

*Check **one** circle only.*

Yes---

No---

If Yes...

5. According to the curriculum, should the students in the advanced mathematics track or course being assessed in TIMSS Advanced have been taught each of the following topics by the end of the year (in the current course or before)?

	Yes	No
f) Using first derivatives to determine gradient and turning points-----	<input type="radio"/>	<input type="radio"/>
g) Using second derivatives to determine maxima, minima, and points of inflection of functions-----	<input type="radio"/>	<input type="radio"/>
h) Integrating functions (including polynomial, exponential, trigonometric, and rational functions)-----	<input type="radio"/>	<input type="radio"/>
i) Evaluating definite integrals-----	<input type="radio"/>	<input type="radio"/>
C. Geometry		
a) Properties of geometric figures; proving geometric propositions in two dimensions-----	<input type="radio"/>	<input type="radio"/>
b) Proving geometric proposition in three dimensions-----	<input type="radio"/>	<input type="radio"/>
c) Gradients, y-axis intercepts, and points of intersection of straight lines in the Cartesian plane-----	<input type="radio"/>	<input type="radio"/>
d) Equations and properties of circles in the Cartesian plane;		

6. In what form is the advanced mathematics curriculum made available?

*Check **one** circle for each line.*

	Yes	No
a) Official publication containing the curriculum-----	<input type="radio"/>	<input type="radio"/>
b) Ministry notes and directives-----	<input type="radio"/>	<input type="radio"/>
c) Mandated or recommended textbooks-----	<input type="radio"/>	<input type="radio"/>
d) Instructional or pedagogical guide-----	<input type="radio"/>	<input type="radio"/>
e) Specifically developed or recommended instructional activities----	<input type="radio"/>	<input type="radio"/>
f) Prescribed syllabus for public examination-----	<input type="radio"/>	<input type="radio"/>
g) Other-----	<input type="radio"/>	<input type="radio"/>
Please specify: _____		

Comments:

7. a) Are textbooks that are used in the advanced mathematics track or course being assessed in TIMSS Advanced certified by an education authority?

*Check **one** circle only.*

Yes---

No---

Comments:

- b) Who pays for the textbooks?

Please describe:

8. a) Does your country have a nationally ma

9. Is there an official policy on encouraging students to choose advanced mathematics courses?

Check **one** circle only.

Yes---

No---

If Yes...

Please explain:

10.

11. If changes were made to the advanced mathematics curriculum, how would a teacher be informed about them?

Check **one** circle for each line.

	Yes	No
a) Special conferences/seminars on curriculum-----	<input type="radio"/>	<input checked="" type="radio"/>
b) Ministry (department of education, government, board of education) website-----	<input type="radio"/>	<input checked="" type="radio"/>
c) Printed copies of curriculum distributed to schools-----	<input type="radio"/>	<input checked="" type="radio"/>
d) Teachers receive own printed copy-----	<input type="radio"/>	<input checked="" type="radio"/>
e) Professional development/in-service education-----	<input type="radio"/>	<input checked="" type="radio"/>
f) Ministry notes-----	<input type="radio"/>	<input checked="" type="radio"/>
g) Professional association newsletter-----	<input type="radio"/>	<input checked="" type="radio"/>
h) Education journals-----	<input type="radio"/>	<input checked="" type="radio"/>
i) Other educational authorities-----	<input type="radio"/>	<input checked="" type="radio"/>
j) Other-----	<input type="radio"/>	<input checked="" type="radio"/>

12. How is the advanced mathematics curriculum implementation evaluated?

Check **one** circle for each line.

	Yes	No
a) Visits by inspectors-----	<input checked="" type="radio"/>	<input type="radio"/>
b) Research programs-----	<input type="radio"/>	<input checked="" type="radio"/>
c) School self-evaluation-----	<input type="radio"/>	<input checked="" type="radio"/>
d) National examinations-----	<input type="radio"/>	<input checked="" type="radio"/>
e) TIMSS Advanced-----	<input type="radio"/>	<input checked="" type="radio"/>
f) Other-----	<input type="radio"/>	<input checked="" type="radio"/>

Please specify:

Comments:

13. Does an education authority in your country (e.g., national ministry of education) administer examinations in mathematics that have consequences for individual students, such as determining grade promotion, entry to a higher school system, entry to a university, and/or exiting or graduating from upper secondary school?

Check **one** circle only.

Yes---

No---

If Yes...

Please describe the authority which administers examinations in mathematics, and list the grades at which they are given:

If No...

Comments:

Thank You
for completing
this questionnaire

