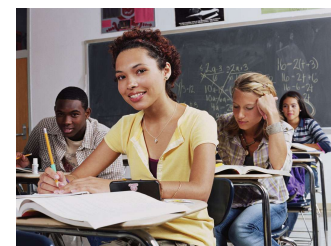




School Board Report



Grade 9 Assessment of Mathematics, 2014–2015

Board: Waterloo Catholic DSB (67148)

On behalf of EQAO, I am pleased to provide you with the results of the 2014–2015 Grade 9 Assessment of Mathematics.

This report includes the 2015 results, as well as results for previous years, so you can track progress over time. You'll also find demographic and attitudinal information, which provides context for interpreting the achievement results. This school year was unique in that not all students participated in the provincial assessments because of labour action in the English-language public school system. As a result, there is no provincial-level information in this report.

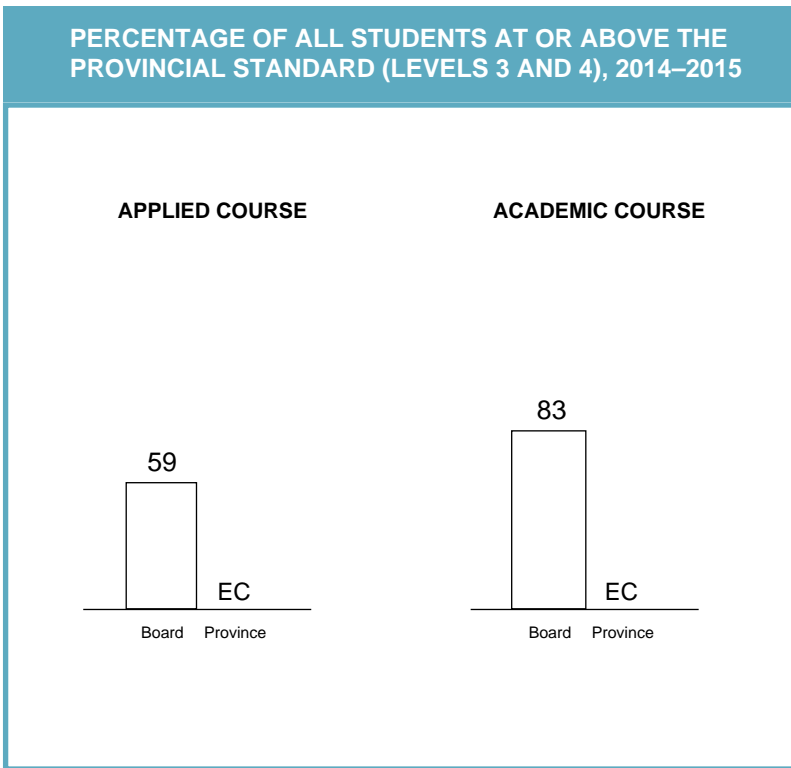
Assessing all students against a provincial standard provides reliable and objective data at the student, school and board levels and helps uncover important trends. By analyzing EQAO data alongside other evidence, school boards and schools can make informed decisions about how to improve student learning and can track their progress toward their goals.

At EQAO, we strongly believe that good information—in the hands of dedicated professionals and school communities—can help to identify areas for improvement and inform targeted interventions. We are pleased to provide reliable and useful information about student achievement from Ontario's provincial assessment program for all partners in the education system.

Sincerely,

Bruce Rodrigues
 Chief Executive Officer
 Education Quality and Accountability Office

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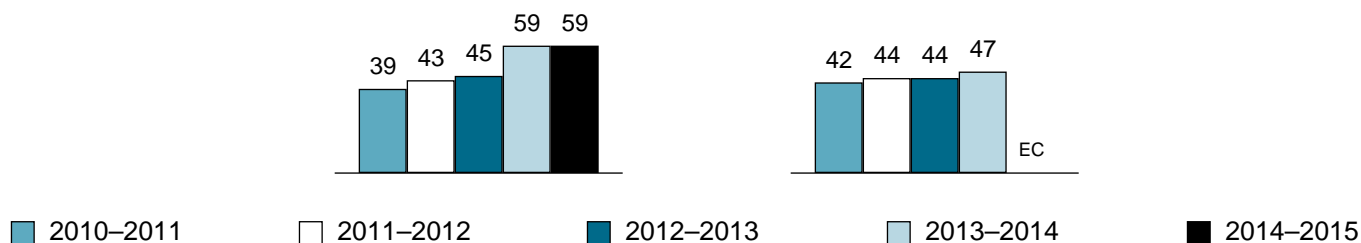
Grade 9 Assessment of Mathematics, 2014–2015

PERCENTAGE OF ALL STUDENTS AT OR ABOVE THE PROVINCIAL STANDARD (LEVELS 3 AND 4) OVER TIME

APPLIED MATHEMATICS

Board

Province



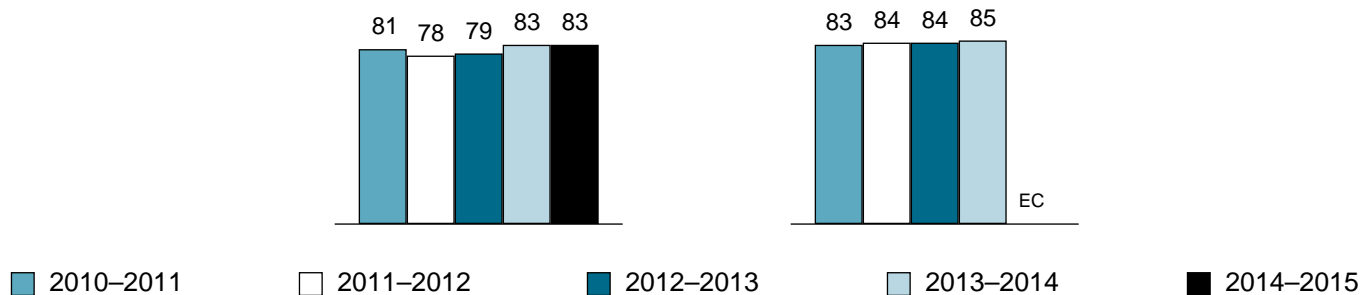
Total Number of Students

	<u>2010–2011</u>	<u>2011–2012</u>	<u>2012–2013</u>	<u>2013–2014</u>	<u>2014–2015</u>
Board	513	434	427	427	413
Province	44 095	41 799	39 881	38 181	EC

ACADEMIC MATHEMATICS

Board

Province



Total Number of Students

	<u>2010–2011</u>	<u>2011–2012</u>	<u>2012–2013</u>	<u>2013–2014</u>	<u>2014–2015</u>
Board	1 128	1 041	1 079	1 065	957
Province	99 278	97 741	97 158	95 914	EC

TIPS

The applied and academic mathematics courses are different and should be considered separately.

Note: Students in locally developed courses do not participate in these assessments.



Each school or board is unique. To appreciate the distinctive character of a school or board, look at the contextual information to understand the features and characteristics of the community it serves.



This assessment captures the performance of students at one point in time each year. Consider the results along with other information about students' achievement in mathematics.



Exercise caution when interpreting results for small schools or boards. Results may vary considerably from year to year, and differences may look exaggerated. For example, in a school of 30 students, a difference of 10% represents only three students.



Trends may be difficult to identify or to interpret. This is especially true when groups are small or in schools where there is a high turnover in the student population.



EQAO values students' privacy. Beginning in 2012–2013, results are not reported publicly for schools where fewer than 10 students participated because it might be possible to identify individual students. Prior to 2012–2013, results were not reported publicly for schools where fewer than 15 students participated.

ABOUT THIS SCHOOL OR BOARD REPORT

This report shows how well students have met curriculum expectations for either the applied or academic mathematics program to the end of Grade 9. Students complete two booklets that allow them to show what they know in mathematics. The assessment is based on *The Ontario Curriculum: Mathematics, Grades 9 and 10*.

This report includes

- ◆ results for this year;
- ◆ a comparison of results of the current and previous administrations to aid in monitoring improvement and
- ◆ information about the characteristics of the students who participated.

Specifically, you will find

- ◆ summary graphs showing the percentage of students achieving the provincial standard in either applied or academic mathematics;
- ◆ detailed tables and graphs showing results for all levels of achievement, participation information and results for gender
- ◆ student questionnaire results and
- ◆ an explanation of all terms used in this report.

HOW TO USE THIS REPORT

- ◆ Examine the contextual information to understand the similarities and differences between this school, the board and the province; the board and the province. Consider the challenges that any differences might present.
- ◆ Examine the results for applied and academic mathematics.
 - Are these results consistent with what you would expect?
 - How do the school results compare to the board and province; the board results compare to the province?
 - How do these results compare over time?
 - What influence might students' attitudes have on student performance (refer to the questionnaire results)?
- ◆ Speak to the school or board staff about the goals for school improvement related to mathematics.

The Education Quality and Accountability Office is an independent agency that gathers information about student achievement through province-wide assessments. Each year, all Grade 9 students in applied and academic mathematics take part in this assessment across Ontario. Individual results are reported to students and to parents and guardians. School, board and provincial results are released publicly.

Learn more about us at www.eqao.com.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

Contextual Information

This information provides a context for interpreting the board's applied mathematics course results.

	Board		Province	
Enrolment				
Number of students in applied mathematics course	413		EC	
Number of classes with students in applied mathematics course	28		EC	
Number of schools with applied mathematics classes	5		EC	
Number Percent Number Percent				
Participation in the Assessment				
Students who participated in the assessment	402	97%	EC	EC
Participating students who received one or more accommodations*	179	45%	EC	EC
Participating students who received one or more special provisions*	25	6%	EC	EC
Students who did not complete any part of the assessment (no data)*	11	3%	EC	EC
Gender[†] Based on number of students enrolled				
Female	182	44%	EC	EC
Male	231	56%	EC	EC
Gender not specified	0	0%	EC	EC
Student Status[†] Based on number of students enrolled				
English language learners*	31	8%	EC	EC
Students with special education needs (excluding gifted)*	188	46%	EC	EC
Semester/Full Year Based on number of students enrolled				
First-semester course	221	54%	EC	EC
Second-semester course	191	46%	EC	EC
Full-year course	1	<1%	EC	EC
Language and School Background^{††}				
<i>Based on Student Questionnaire data</i>				
Number of Respondents:		363	EC	
Speak only or mostly a language other than English at home	19	5%	EC	EC
Speak another language as often as English at home	47	13%	EC	EC
Attended three or more elementary schools from kindergarten to Grade 8	114	31%	EC	EC

* See the Explanation of Terms.

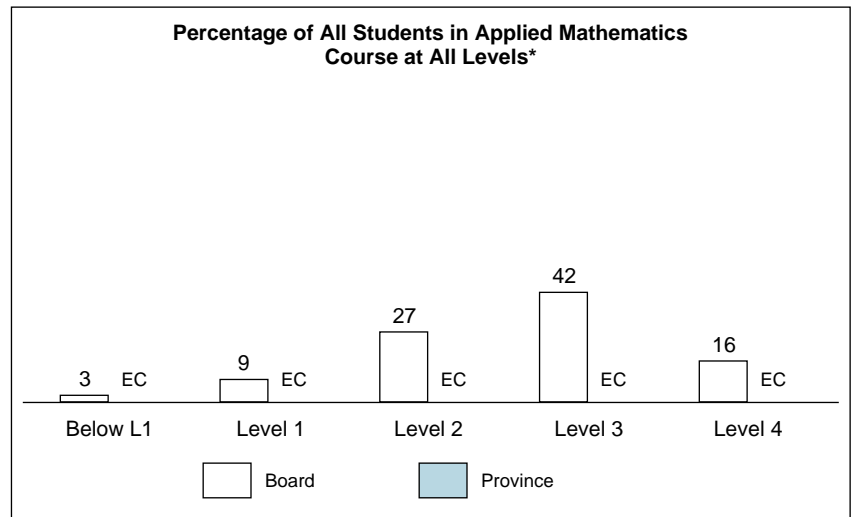
[†] Contextual data pertaining to "gender" and "student status" are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by the school or the board.

^{††} Contextual data pertaining to "school background" and "language" are gathered from the Student Questionnaire completed by students. Some data may be missing because they were not provided by the students.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

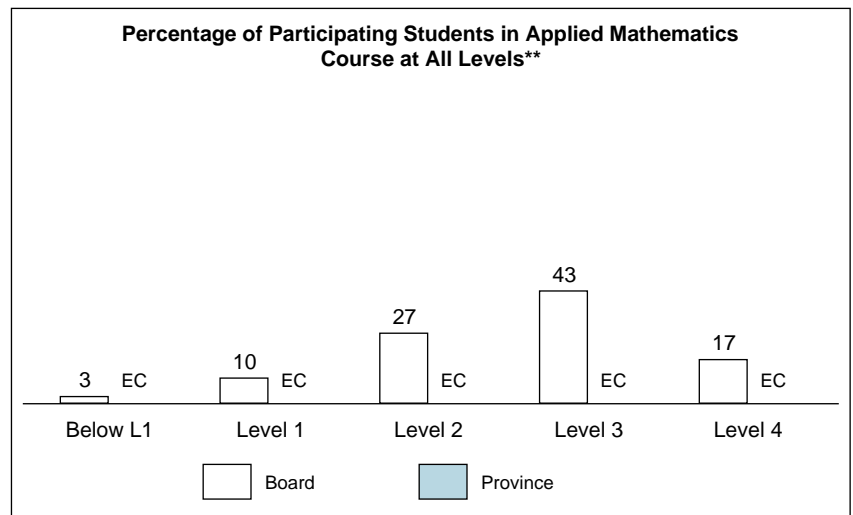
Results for All Students

All Students*			
Number of Students	Board 413		Province EC
	#	%	%
Level 4	68	16%	EC
Level 3	174	42%	EC
Level 2	110	27%	EC
Level 1	39	9%	EC
Below Level 1	11	3%	EC
Participating Students	402	97%	EC
No Data	11	3%	EC
At or Above Provincial Standard (Levels 3 and 4) †	59%		EC



Results for Participating Students (excludes "no data" category)

Participating Students**			
Number of Students	Board 402		Province EC
	#	%	%
Level 4	68	17%	EC
Level 3	174	43%	EC
Level 2	110	27%	EC
Level 1	39	10%	EC
Below Level 1	11	3%	EC
At or Above Provincial Standard (Levels 3 and 4) †	60%		EC



* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.

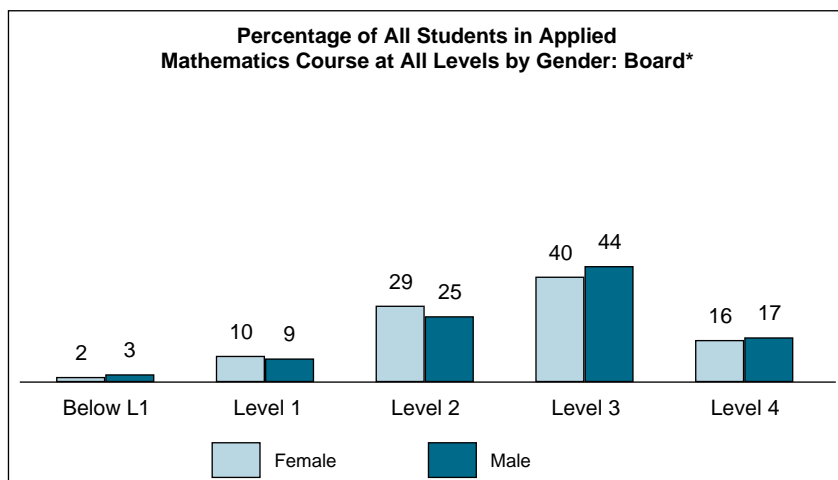
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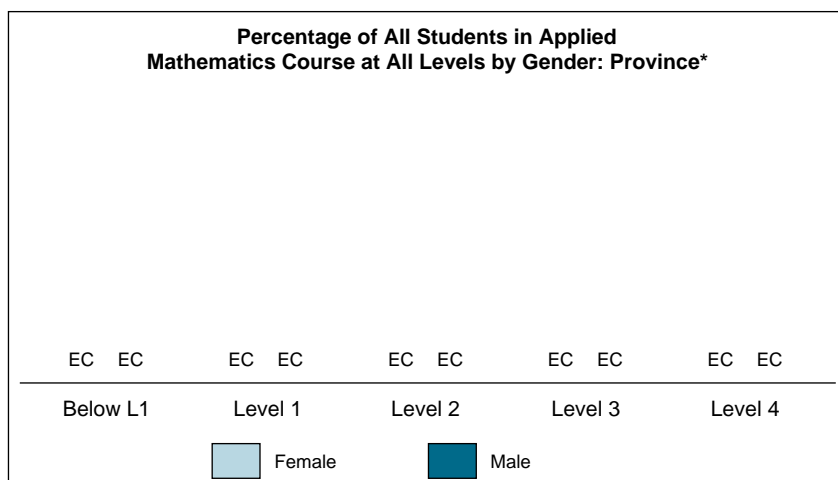
Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

Results by Gender^{††}

All Students: Board by Gender*				
Number of Students	Female 182		Male 231	
	#	%	#	%
Level 4	29	16%	39	17%
Level 3	72	40%	102	44%
Level 2	52	29%	58	25%
Level 1	19	10%	20	9%
Below Level 1	4	2%	7	3%
Participating Students	176	97%	226	98%
No Data	6	3%	5	2%
At or Above Provincial Standard (Levels 3 and 4) [†]		55%	61%	



All Students: Province by Gender*				
Number of Students	Female EC		Male EC	
	#	%	#	%
Level 4	EC	EC	EC	EC
Level 3	EC	EC	EC	EC
Level 2	EC	EC	EC	EC
Level 1	EC	EC	EC	EC
Below Level 1	EC	EC	EC	EC
Participating Students	EC	EC	EC	EC
No Data	EC	EC	EC	EC
At or Above Provincial Standard (Levels 3 and 4) [†]		EC	EC	



* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.
[†] These percentages are based on the actual number of students and cannot be calculated simply by adding the rounded percentages of students at Levels 3 and 4.
^{††} Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

Contextual Information

This information provides a context for interpreting the board's academic mathematics course results.

	Board		Province	
Enrolment				
Number of students in academic mathematics course	957		EC	
Number of classes with students in academic mathematics course	37		EC	
Number of schools with academic mathematics classes	5		EC	
Number Percent Number Percent				
Participation in the Assessment				
Students who participated in the assessment	945	99%	EC	EC
Participating students who received one or more accommodations*	63	7%	EC	EC
Participating students who received one or more special provisions*	17	2%	EC	EC
Students who did not complete any part of the assessment (no data)*	12	1%	EC	EC
Gender[†] Based on number of students enrolled				
Female	476	50%	EC	EC
Male	481	50%	EC	EC
Gender not specified	0	0%	EC	EC
Student Status[†] Based on number of students enrolled				
English language learners*	27	3%	EC	EC
Students with special education needs (excluding gifted)*	80	8%	EC	EC
Semester/Full Year Based on number of students enrolled				
First-semester course	497	52%	EC	EC
Second-semester course	460	48%	EC	EC
Full-year course	0	0%	EC	EC
Language and School Background^{††}				
<i>Based on Student Questionnaire data</i>				
Number of Respondents:		902	EC	
Speak only or mostly a language other than English at home	68	8%	EC	EC
Speak another language as often as English at home	107	12%	EC	EC
Attended three or more elementary schools from kindergarten to Grade 8	195	22%	EC	EC

* See the Explanation of Terms.

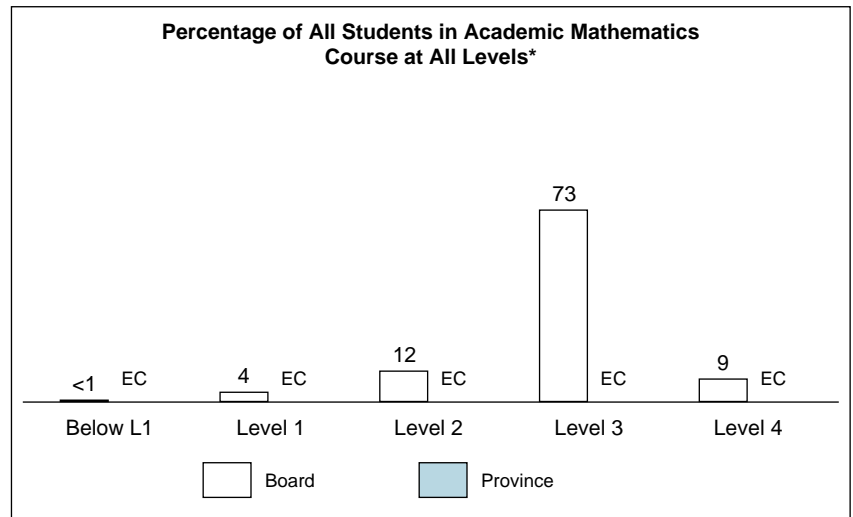
[†] Contextual data pertaining to "gender" and "student status" are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by the school or the board.

^{††} Contextual data pertaining to "school background" and "language" are gathered from the Student Questionnaire completed by students. Some data may be missing because they were not provided by the students.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

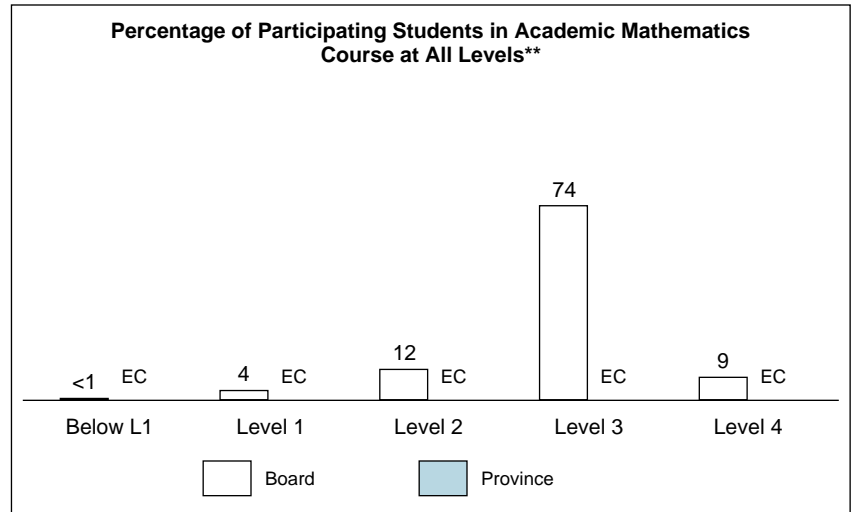
Results for All Students

All Students*			
Number of Students	Board 957		Province EC
	#	%	%
Level 4	88	9%	EC
Level 3	702	73%	EC
Level 2	117	12%	EC
Level 1	37	4%	EC
Below Level 1	1	<1%	EC
Participating Students	945	99%	EC
No Data	12	1%	EC
At or Above Provincial Standard (Levels 3 and 4) †	83%		EC



Results for Participating Students (excludes "no data" category)

Participating Students**			
Number of Students	Board 945		Province EC
	#	%	%
Level 4	88	9%	EC
Level 3	702	74%	EC
Level 2	117	12%	EC
Level 1	37	4%	EC
Below Level 1	1	<1%	EC
At or Above Provincial Standard (Levels 3 and 4) †	84%		EC



* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.

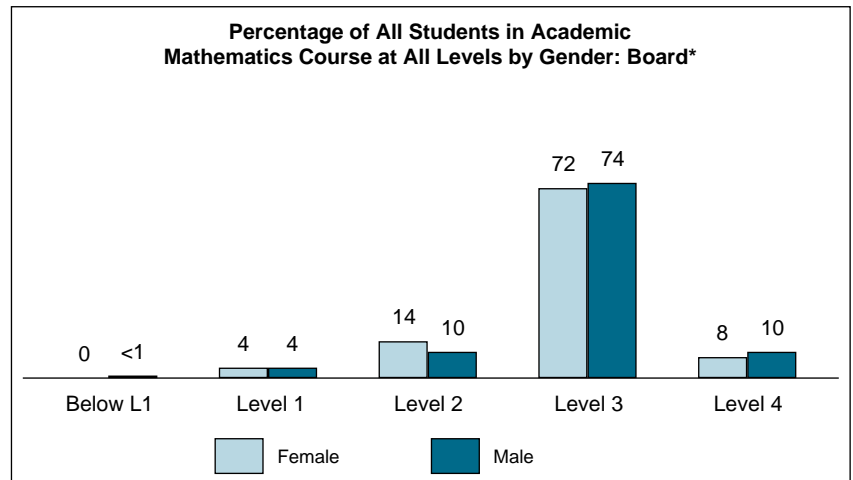
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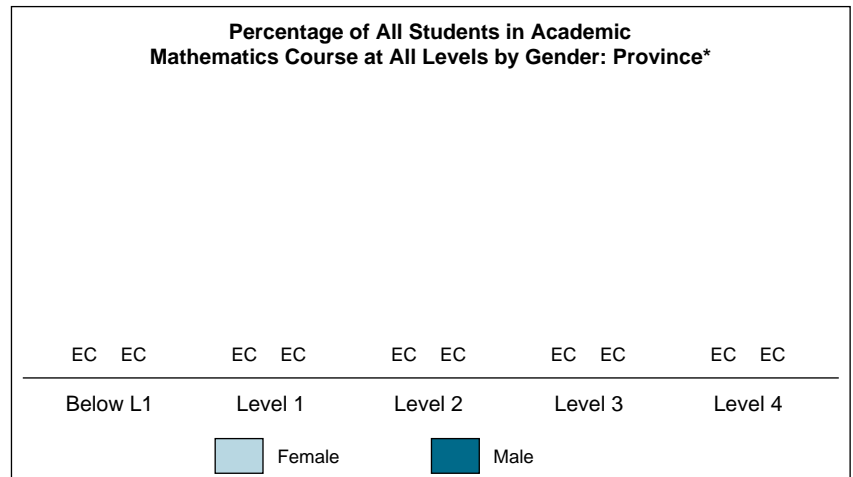
Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

Results by Gender††

All Students: Board by Gender*				
Number of Students	Female 476		Male 481	
	#	%	#	%
Level 4	38	8%	50	10%
Level 3	344	72%	358	74%
Level 2	67	14%	50	10%
Level 1	18	4%	19	4%
Below Level 1	0	0%	1	<1%
Participating Students	467	98%	478	99%
No Data	9	2%	3	1%
At or Above Provincial Standard (Levels 3 and 4) †		80%	85%	



All Students: Province by Gender*				
Number of Students	Female EC		Male EC	
	#	%	#	%
Level 4	EC	EC	EC	EC
Level 3	EC	EC	EC	EC
Level 2	EC	EC	EC	EC
Level 1	EC	EC	EC	EC
Below Level 1	EC	EC	EC	EC
Participating Students	EC	EC	EC	EC
No Data	EC	EC	EC	EC
At or Above Provincial Standard (Levels 3 and 4) †		EC	EC	



* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.
 † These percentages are based on the actual number of students and cannot be calculated simply by adding the rounded percentages of students at Levels 3 and 4.
 †† Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2014–2015

Contextual Information over Time: Applied Mathematics Course

This information provides a context for interpreting the board's results of the current and previous administrations.

	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015	
Enrolment						
Number of students in applied mathematics course	513	434	427	427	413	
Number of classes with students in applied mathematics course	25	23	21	30	28	
Number of schools with applied mathematics classes	5	5	5	5	5	
Participation in the Assessment						
Students who participated in the assessment	97%	95%	96%	98%	97%	
Participating students who received one or more accommodations*	35%	43%	43%	42%	45%	
Participating students who received one or more special provisions*	9%	8%	7%	7%	6%	
Students who did not complete any part of the assessment (no data)*	3%	5%	4%	2%	3%	
Gender[†] Based on number of students enrolled						
Female	44%	45%	42%	43%	44%	
Male	56%	55%	58%	57%	56%	
Gender not specified	0%	0%	0%	0%	0%	
Student Status[†] Based on number of students enrolled						
English language learners*	10%	8%	9%	8%	8%	
Students with special education needs (excluding gifted)*	47%	46%	43%	46%	46%	
Semester/Full Year Based on number of students enrolled						
First-semester course	47%	62%	56%	52%	54%	
Second-semester course	53%	38%	44%	48%	46%	
Full-year course	0%	0%	0%	0%	<1%	
Language and School Background^{††} Based on Student Questionnaire data						
	Number of Respondents:	458	381	378	372	363
Speak only or mostly a language other than English at home	8%	7%	9%	6%	5%	
Speak another language as often as English at home	12%	14%	12%	8%	13%	
Attended three or more elementary schools from kindergarten to Grade 8	33%	29%	34%	30%	31%	

* See the Explanation of Terms.

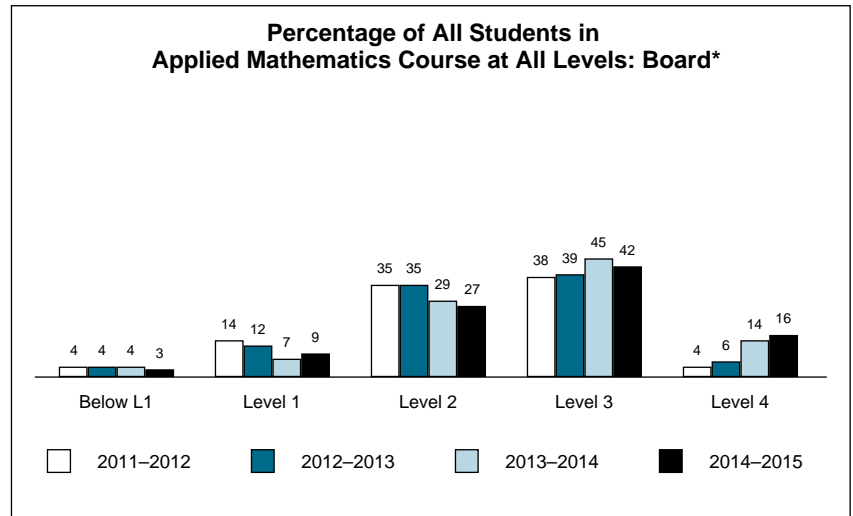
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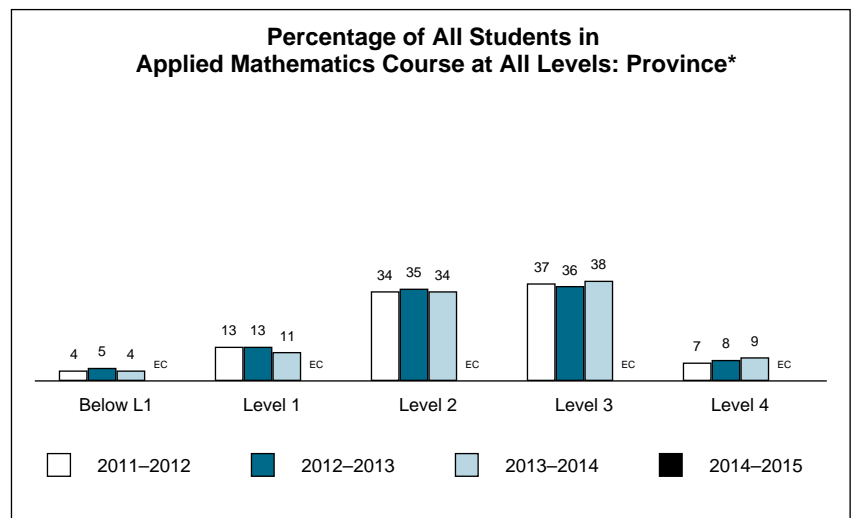
Results over Time, 2011–2012 to 2014–2015

Applied Mathematics Course for All Students

Board*				
Year	'11-'12	'12-'13	'13-'14	'14-'15
<i>Number of Students</i>	434	427	427	413
Level 4	4%	6%	14%	16%
Level 3	38%	39%	45%	42%
Level 2	35%	35%	29%	27%
Level 1	14%	12%	7%	9%
Below Level 1	4%	4%	4%	3%
<i>Participating Students</i>	95%	96%	98%	97%
No Data	5%	4%	2%	3%
At or Above Provincial Standard (Levels 3 and 4)†	43%	45%	59%	59%



Province*				
Year	'11-'12	'12-'13	'13-'14	'14-'15
<i>Number of Students</i>	41 799	39 881	38 181	EC
Level 4	7%	8%	9%	EC
Level 3	37%	36%	38%	EC
Level 2	34%	35%	34%	EC
Level 1	13%	13%	11%	EC
Below Level 1	4%	5%	4%	EC
<i>Participating Students</i>	95%	96%	96%	EC
No Data	5%	4%	4%	EC
At or Above Provincial Standard (Levels 3 and 4)†	44%	44%	47%	EC



* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the rounded percentages of students at Levels 3 and 4.

Grade 9 Assessment of Mathematics, 2014–2015

Contextual Information over Time: Academic Mathematics Course

This information provides a context for interpreting the board's results of the current and previous administrations.

2010–2011 2011–2012 2012–2013 2013–2014 2014–2015

Enrolment

Number of students in academic mathematics course	1 128	1 041	1 079	1 065	957
Number of classes with students in academic mathematics course	41	38	42	41	37
Number of schools with academic mathematics classes	5	5	5	5	5

Participation in the Assessment

Students who participated in the assessment	99%	99%	99%	99%	99%
Participating students who received one or more accommodations*	6%	7%	6%	6%	7%
Participating students who received one or more special provisions*	2%	3%	4%	4%	2%
Students who did not complete any part of the assessment (no data)*	1%	1%	1%	1%	1%

Gender[†] Based on number of students enrolled

Female	54%	52%	49%	49%	50%
Male	46%	48%	51%	51%	50%
Gender not specified	0%	0%	0%	0%	0%

Student Status[†] Based on number of students enrolled

English language learners*	4%	4%	7%	6%	3%
Students with special education needs (excluding gifted)*	9%	8%	7%	8%	8%

Semester/Full Year Based on number of students enrolled

First-semester course	49%	50%	47%	52%	52%
Second-semester course	51%	50%	53%	48%	48%
Full-year course	0%	0%	0%	0%	0%

Language and School Background^{††}

Based on Student Questionnaire data

	Number of Respondents:	1 079	962	990	982	902
Speak only or mostly a language other than English at home		8%	9%	7%	8%	8%
Speak another language as often as English at home		12%	11%	13%	12%	12%
Attended three or more elementary schools from kindergarten to Grade 8		21%	23%	24%	24%	22%

* See the Explanation of Terms.

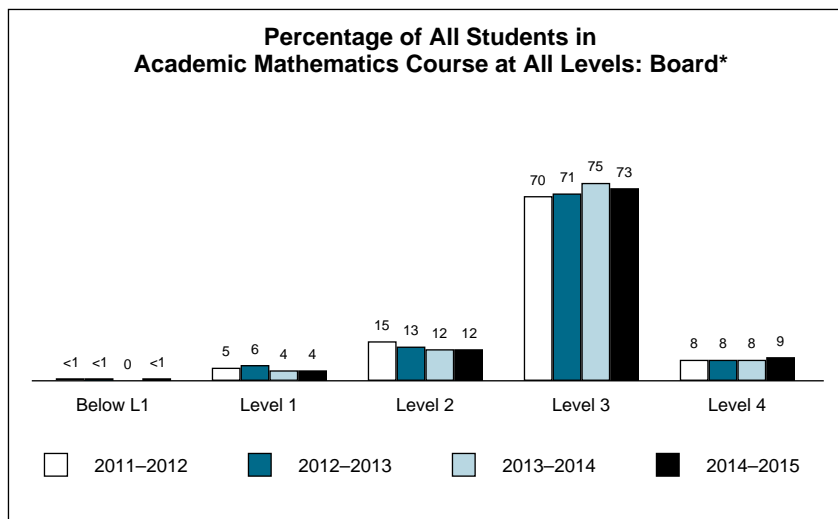
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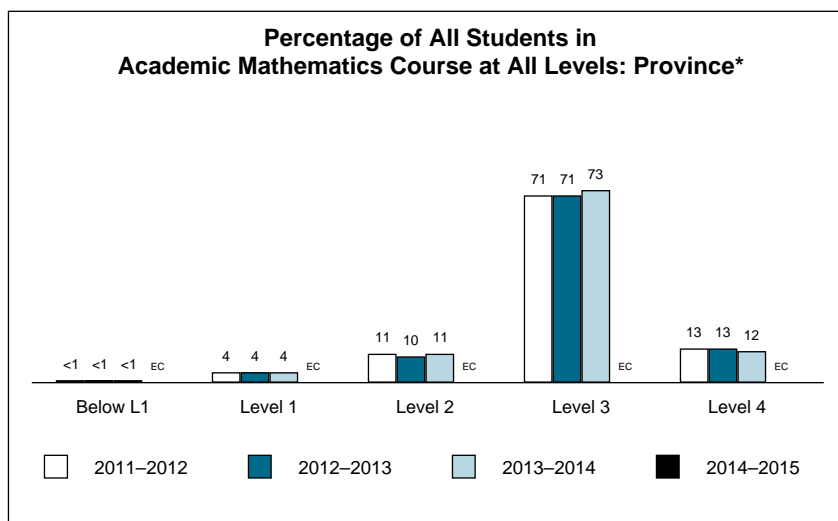
Results over Time, 2011–2012 to 2014–2015

Academic Mathematics Course for All Students

Board*				
Year	'11-'12	'12-'13	'13-'14	'14-'15
<i>Number of Students</i>	1 041	1 079	1 065	957
Level 4	8%	8%	8%	9%
Level 3	70%	71%	75%	73%
Level 2	15%	13%	12%	12%
Level 1	5%	6%	4%	4%
Below Level 1	<1%	<1%	0%	<1%
<i>Participating Students</i>	99%	99%	99%	99%
No Data	1%	1%	1%	1%
At or Above Provincial Standard (Levels 3 and 4)†	78%	79%	83%	83%



Province*				
Year	'11-'12	'12-'13	'13-'14	'14-'15
<i>Number of Students</i>	97 741	97 158	95 914	EC
Level 4	13%	13%	12%	EC
Level 3	71%	71%	73%	EC
Level 2	11%	10%	11%	EC
Level 1	4%	4%	4%	EC
Below Level 1	<1%	<1%	<1%	EC
<i>Participating Students</i>	99%	99%	99%	EC
No Data	1%	1%	1%	EC
At or Above Provincial Standard (Levels 3 and 4)†	84%	84%	85%	EC

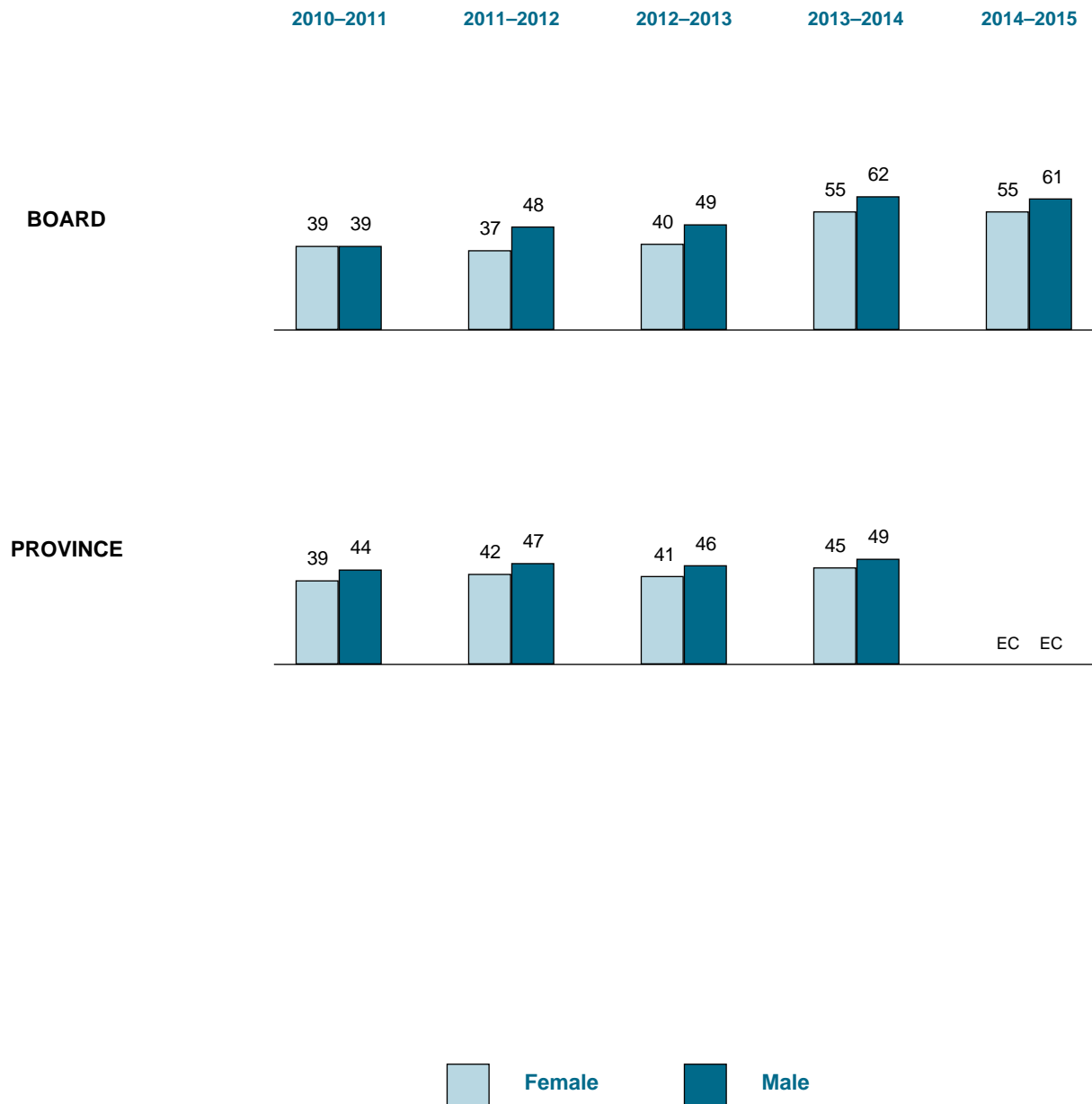


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† These percentages are based on the actual number of students and cannot be calculated simply by adding the rounded percentages of students at Levels 3 and 4.

RESULTS FOR ALL STUDENTS OVER TIME BY GENDER †

**Percentage of Students At or Above the Provincial Standard (Levels 3 and 4):
GRADE 9 APPLIED MATHEMATICS**



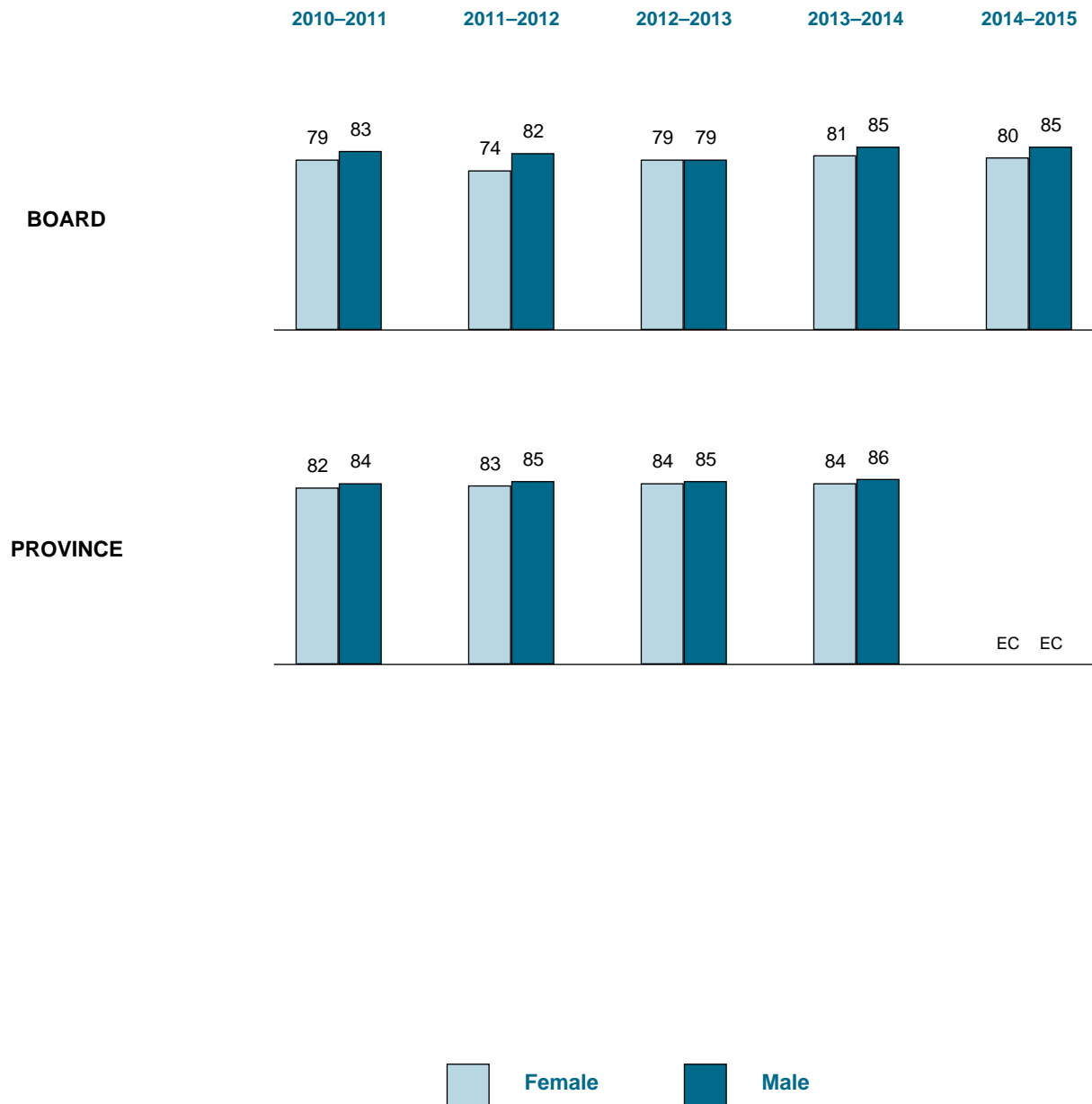
Total Number of Students in Applied Mathematics Course†

	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Board	228	285	197	237	180	247	185	242	182	231
Province	19 721	24 374	18 563	23 236	17 695	22 181	16 662	21 519	EC	EC

† Includes only students for whom gender data were available.

RESULTS FOR ALL STUDENTS OVER TIME BY GENDER †

**Percentage of Students At or Above the Provincial Standard (Levels 3 and 4):
GRADE 9 ACADEMIC MATHEMATICS**



Total Number of Students in Academic Mathematics Course †

	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Board	608	520	544	497	525	554	519	546	476	481
Province	50 814	48 464	50 134	47 607	49 986	47 171	49 157	46 757	EC	EC

† Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =363)



STUDENTS' ATTITUDES TOWARD MATHEMATICS

How much do you agree or disagree with the following statements?	Percentage of Students*	Number of students who answered "agree" or "strongly agree"
I like mathematics.		161
I am good at mathematics.		153
I am able to answer difficult mathematics questions.		100
Mathematics is one of my favourite subjects.		88
I understand most of the mathematics I am taught.		248
Mathematics is an easy subject.		77
I do my best in mathematics class.		310
The mathematics I learn now is useful for everyday life.		134
The mathematics I learn now helps me do work in other subjects.		168
I need to do well in mathematics to study what I want later.		186
I need to keep taking mathematics for the kind of job I want after I leave school.		176



How confident are you that you can answer mathematics questions related to the following?

How confident are you that you can answer mathematics questions related to the following?	Percentage of Students*	Number of students who answered "very confident"
number sense (e.g., operations with integers, rational numbers, exponents)		23
algebra (e.g., solving equations, simplifying expressions with polynomials)		48
linear relations (e.g., scatter plots, lines of best fit)		45
measurement (e.g., perimeter, area, volume)		94
geometry (e.g., angles, parallel lines)		50

* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =363)



DOING MATHEMATICS

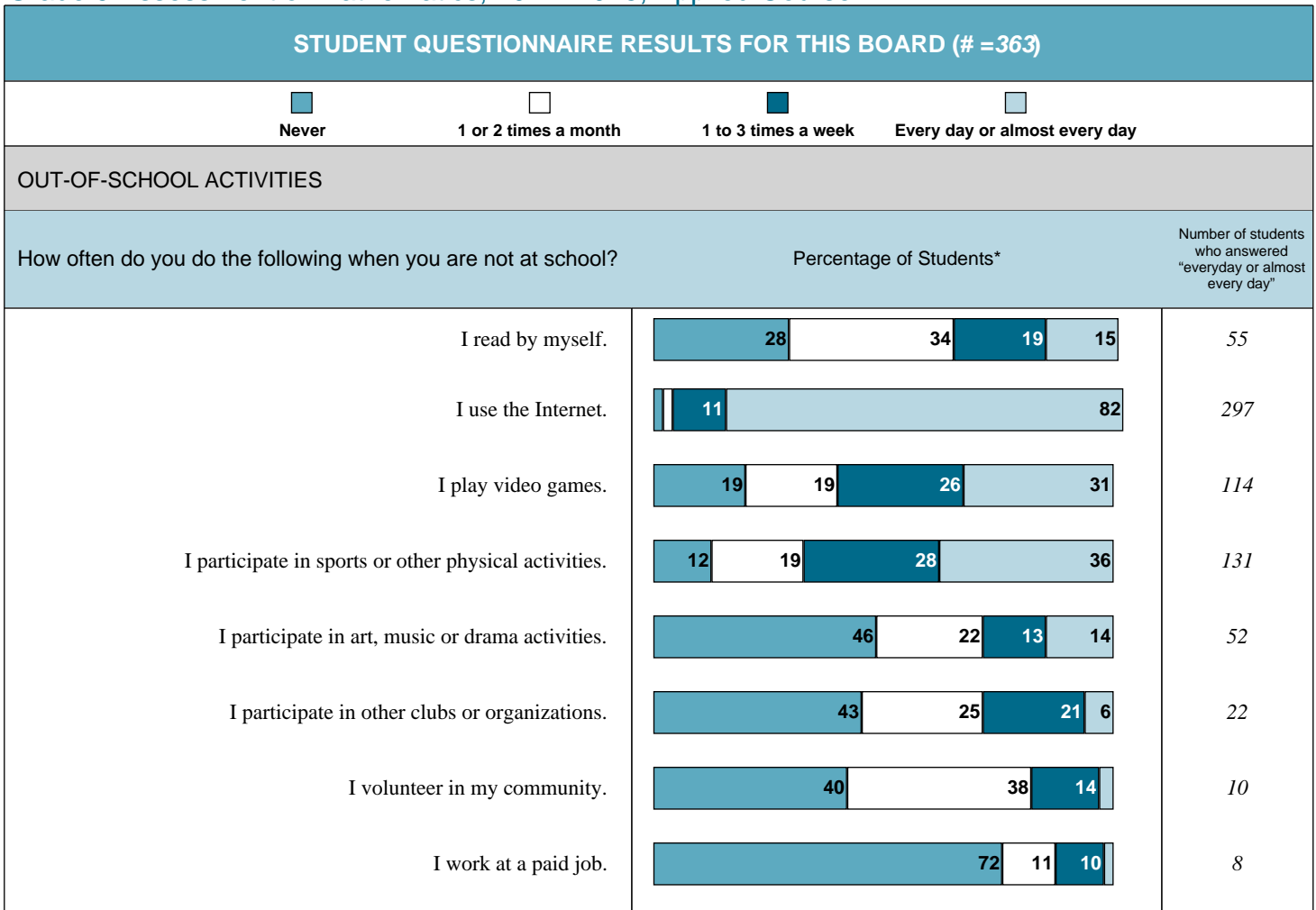
How often do you do the following when studying mathematics or working on a mathematics problem?	Percentage of Students*	Number of students who answered "very often"
I connect new mathematics concepts to what I already know about mathematics or other subjects.		9
I check my mathematics answers to see if they make sense.		48
I apply new mathematics concepts to real-life problems.		14
I take time to discuss my mathematics assignments with my classmates.		11
I look for more than one way to solve mathematics problems.		23

How often do you complete your mathematics homework?

How often do you complete your mathematics homework?	Percentage of Students*	Number of students
I am not usually assigned any mathematics homework		40
Never or almost never		15
Sometimes		79
Often		134
Always		73

* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course



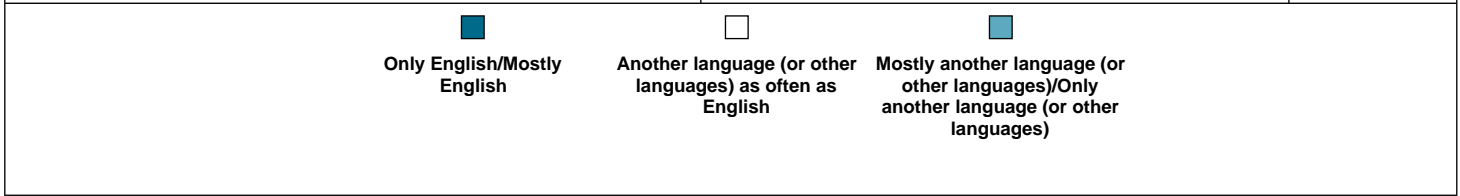
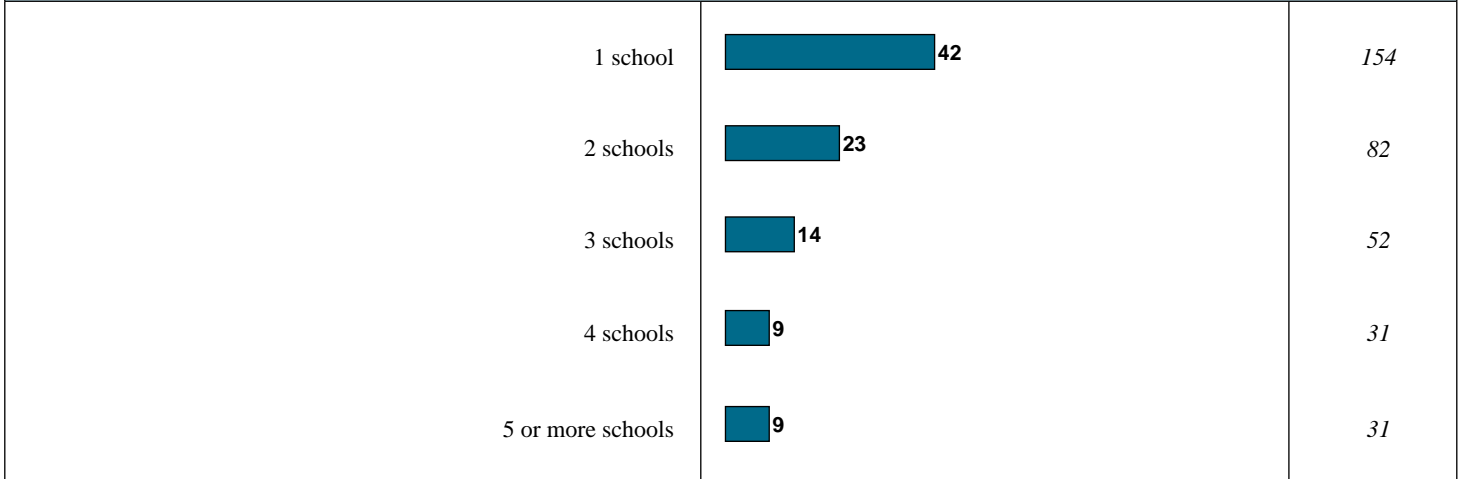
* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

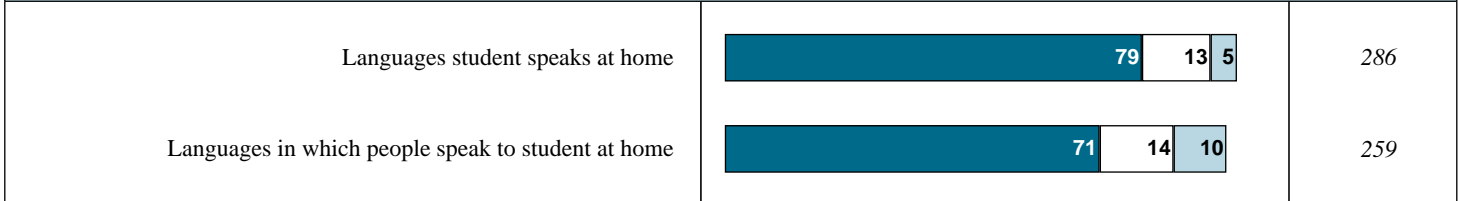
STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =363)

SCHOOLS ATTENDED

How many schools did you attend from kindergarten to Grade 8? Percentage of Students* Number of students











LANGUAGES SPOKEN Percentage of Students* Number of students who answered "only English" or "mostly English"



* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =363)		
USE OF THE ASSESSMENT IN CLASS MARKS		
Will your teacher count some or all parts of the Grade 9 Assessment of Mathematics as part of your class mark?	Percentage of Students*	Number of students
Yes	 44	159
No	 2	6
Don't know	 52	187
<i>Total number of students:</i>		159
Were you told how much the assessment will count as part of your class mark (e.g., 5%)? †	Percentage of Students*	Number of students
Yes	 86	136
No	 13	21
<i>Total number of students:</i>		159
Does counting the Grade 9 Assessment of Mathematics as part of your class mark motivate you to take the assessment more seriously? †	Percentage of Students*	Number of students
Yes	 82	131
No	 4	6
Undecided	 13	20

* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

† Numbers and percentages are based on the number of students who indicated that their teacher will count some or all parts of the assessment as part of their class mark.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 363)	Female* (# = 160)	Male* (# = 203)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
STUDENTS' ATTITUDES TOWARD MATHEMATICS						
Percentage of students indicating they "agree" or "strongly agree" with the following statements: †						
I like mathematics.	44%	37%	50%	EC	EC	EC
I am good at mathematics.	42%	39%	44%	EC	EC	EC
I am able to answer difficult mathematics questions.	28%	22%	32%	EC	EC	EC
Mathematics is one of my favourite subjects.	24%	22%	26%	EC	EC	EC
I understand most of the mathematics I am taught.	68%	69%	68%	EC	EC	EC
Mathematics is an easy subject.	21%	17%	25%	EC	EC	EC
I do my best in mathematics class.	85%	89%	83%	EC	EC	EC
The mathematics I learn now is useful for everyday life.	37%	32%	41%	EC	EC	EC
The mathematics I learn now helps me do work in other subjects.	46%	42%	49%	EC	EC	EC
I need to do well in mathematics to study what I want later.	51%	49%	53%	EC	EC	EC
I need to keep taking mathematics for the kind of job I want after I leave school.	48%	45%	51%	EC	EC	EC
Percentage of students indicating they feel "confident" or "very confident" that they can answer mathematics questions related to the following: ‡						
number sense (e.g., operations with integers, rational numbers, exponents)	45%	44%	46%	EC	EC	EC
algebra (e.g., solving equations, simplifying expressions with polynomials)	49%	46%	52%	EC	EC	EC
linear relations (e.g., scatter plots, lines of best fit)	54%	49%	57%	EC	EC	EC
measurement (e.g., perimeter, area, volume)	72%	72%	72%	EC	EC	EC
geometry (e.g., angles, parallel lines)	49%	44%	53%	EC	EC	EC

* Includes only students for whom gender data were available.

† Other response options were "strongly disagree," "disagree" and "neither agree nor disagree."

‡ Other response options were "not at all confident" and "somewhat confident."

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 363)	Female* (# = 160)	Male* (# = 203)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
DOING MATHEMATICS						
Percentage of students indicating they do the following “very often” when studying mathematics or working on a mathematics problem: †						
I connect new mathematics concepts to what I already know about mathematics or other subjects.	2%	2%	2%	EC	EC	EC
I check my mathematics answers to see if they make sense.	13%	17%	10%	EC	EC	EC
I apply new mathematics concepts to real-life problems.	4%	1%	6%	EC	EC	EC
I take time to discuss my mathematics assignments with my classmates.	3%	2%	3%	EC	EC	EC
I look for more than one way to solve mathematics problems.	6%	4%	8%	EC	EC	EC
Percentage of students indicating they complete their mathematics homework at the following frequencies: ‡						
I am not usually assigned any mathematics homework	11%	13%	9%	EC	EC	EC
Never or almost never	4%	3%	5%	EC	EC	EC
Sometimes	22%	14%	28%	EC	EC	EC
Often	37%	38%	36%	EC	EC	EC
Always	20%	26%	15%	EC	EC	EC

* Includes only students for whom gender data were available.

† Other response options were “never or almost never,” “sometimes” and “often.”

‡ Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 363)	Female* (# = 160)	Male* (# = 203)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
OUT-OF-SCHOOL ACTIVITIES						
Percentage of students indicating they do the following “every day or almost every day” when they are not at school: †						
I read by myself.	15%	22%	10%	EC	EC	EC
I use the Internet.	82%	84%	80%	EC	EC	EC
I play video games.	31%	8%	50%	EC	EC	EC
I participate in sports or other physical activities.	36%	26%	44%	EC	EC	EC
I participate in art, music or drama activities.	14%	24%	7%	EC	EC	EC
I participate in other clubs or organizations.	6%	7%	5%	EC	EC	EC
I volunteer in my community.	3%	4%	2%	EC	EC	EC
I work at a paid job.	2%	2%	2%	EC	EC	EC
SCHOOLS ATTENDED						
Percentage of students indicating the number of schools they attended from kindergarten to Grade 8: ‡						
1 school	42%	41%	43%	EC	EC	EC
2 schools	23%	24%	22%	EC	EC	EC
3 schools	14%	14%	15%	EC	EC	EC
4 schools	9%	9%	8%	EC	EC	EC
5 or more schools	9%	9%	8%	EC	EC	EC
LANGUAGES SPOKEN						
Percentage of students indicating that they speak the following languages at home: ‡						
Only English/Mostly English	79%	79%	79%	EC	EC	EC
Another language (or other languages) as often as English	13%	14%	12%	EC	EC	EC
Mostly another language (or other languages)/ Only another language (or other languages)	5%	4%	6%	EC	EC	EC
Percentage of students indicating the languages people speak to them at home: ‡						
Only English/Mostly English	71%	73%	70%	EC	EC	EC
Another language (or other languages) as often as English	14%	15%	13%	EC	EC	EC
Mostly another language (or other languages)/ Only another language (or other languages)	10%	8%	12%	EC	EC	EC

* Includes only students for whom gender data were available.

† Other response options were “never,” “1 or 2 times a month” and “1 to 3 times a week.”

‡ Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

Grade 9 Assessment of Mathematics, 2014–2015, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 363)	Female* (# = 160)	Male* (# = 203)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
USE OF THE ASSESSMENT IN CLASS MARKS						
Percentage of students indicating their teacher will count some or all parts of the Grade 9 Assessment of Mathematics as part of their class mark: †						
Yes	44%	50%	39%	EC	EC	EC
No	2%	1%	2%	EC	EC	EC
Don't know	52%	46%	56%	EC	EC	EC
Percentage of students indicating they were told how much the assessment will count as part of their class mark: †‡						
	All Students (# = 159)	Female* (# = 80)	Male* (# = 79)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
Yes	86%	89%	82%	EC	EC	EC
No	13%	10%	16%	EC	EC	EC
Percentage of students indicating that counting the Grade 9 Assessment of Mathematics as part of their class mark motivates them to take the assessment more seriously: †‡						
	All Students (# = 159)	Female* (# = 80)	Male* (# = 79)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
Yes	82%	88%	77%	EC	EC	EC
No	4%	4%	4%	EC	EC	EC
Undecided	13%	8%	18%	EC	EC	EC

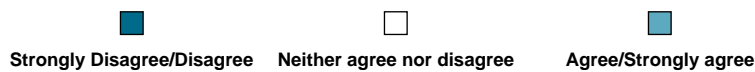
* Includes only students for whom gender data were available.

† Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

‡ Numbers and percentages are based on the number of students who indicated that their teacher will count some or all parts of the assessment as part of their class mark.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =902)



STUDENTS' ATTITUDES TOWARD MATHEMATICS

How much do you agree or disagree with the following statements?	Percentage of Students*			Number of students who answered "agree" or "strongly agree"
I like mathematics.	20	23	57	517
I am good at mathematics.	15	29	56	507
I am able to answer difficult mathematics questions.	19	35	46	413
Mathematics is one of my favourite subjects.	40	19	40	363
I understand most of the mathematics I am taught.	8	18	73	661
Mathematics is an easy subject.	35	34	29	265
I do my best in mathematics class.	8		88	798
The mathematics I learn now is useful for everyday life.	30	37	33	294
The mathematics I learn now helps me do work in other subjects.	19	27	53	481
I need to do well in mathematics to study what I want later.	12	23	64	575
I need to keep taking mathematics for the kind of job I want after I leave school.	14	25	60	544





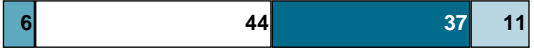



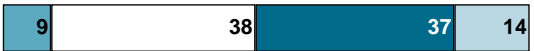






How confident are you that you can answer mathematics questions related to the following?

How confident are you that you can answer mathematics questions related to the following?	Percentage of Students*				Number of students who answered "very confident"
number sense (e.g., operations with integers, rational numbers, exponents)		31	49	18	160
algebra (e.g., solving equations, simplifying expressions with polynomials)	5	28	39	26	239
linear relations (e.g., scatter plots, lines of best fit)	6	30	47	16	147
analytic geometry (e.g., slope, y-intercept, equations of lines)	10	27	40	21	191
measurement (e.g., perimeter, area, volume)		17	45	33	302
geometry (e.g., angles, parallel lines)	5	25	39	30	270

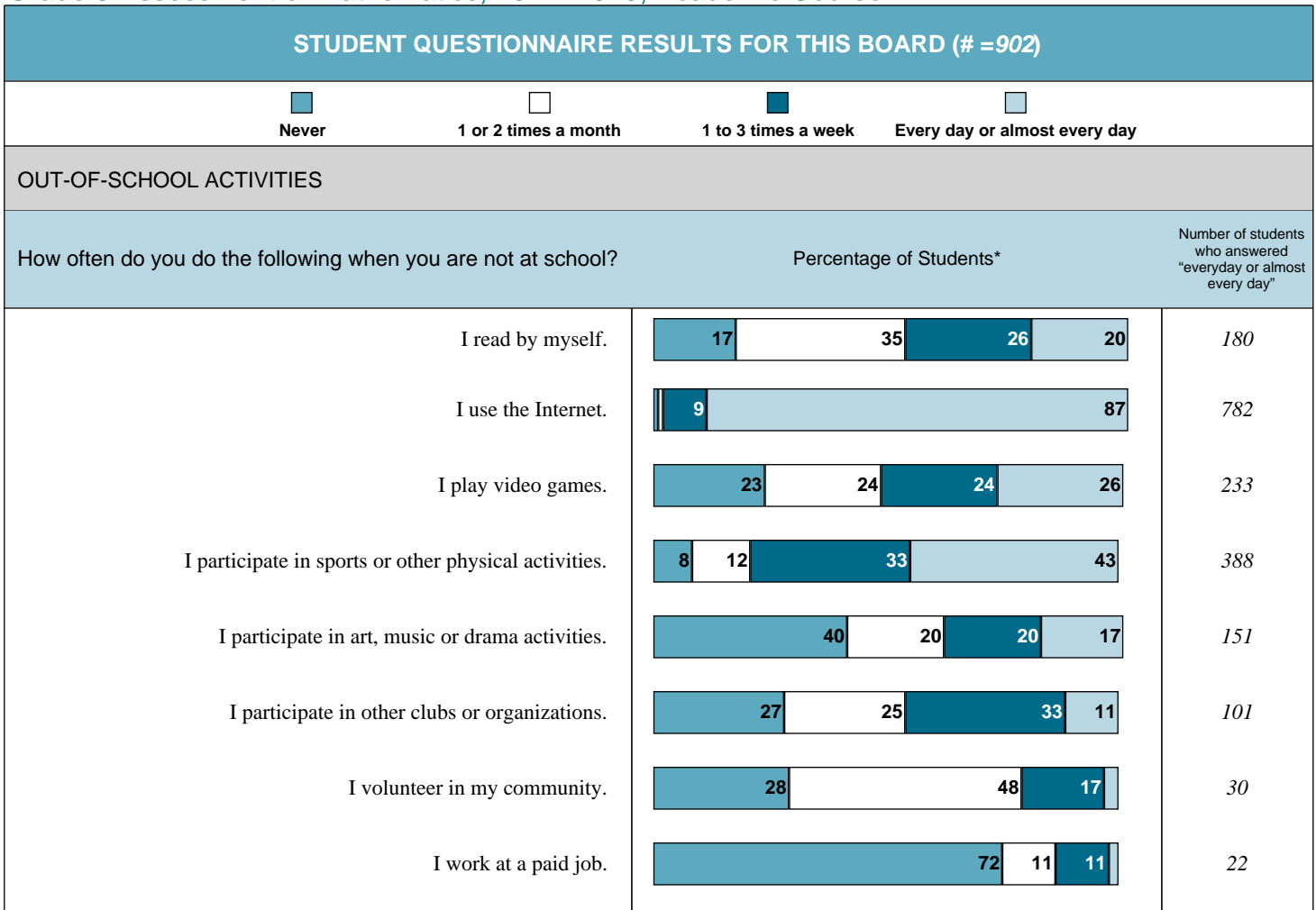
* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =902)				
	 Never or almost never	 Sometimes	 Often	 Very Often
DOING MATHEMATICS				
How often do you do the following when studying mathematics or working on a mathematics problem?		Percentage of Students*		Number of students who answered "very often"
I connect new mathematics concepts to what I already know about mathematics or other subjects.				98
I check my mathematics answers to see if they make sense.				261
I apply new mathematics concepts to real-life problems.				50
I take time to discuss my mathematics assignments with my classmates.				84
I look for more than one way to solve mathematics problems.				128
How often do you complete your mathematics homework?		Percentage of Students*		Number of students
I am not usually assigned any mathematics homework				5
Never or almost never				43
Sometimes				177
Often				337
Always				303











* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course











* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =902)			
SCHOOLS ATTENDED			
How many schools did you attend from kindergarten to Grade 8?		Percentage of Students*	Number of students
1 school		47	424
2 schools		28	257
3 schools		11	98
4 schools		6	52
5 or more schools		5	45
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  Only English/Mostly English </div> <div style="text-align: center;">  Another language (or other languages) as often as English </div> <div style="text-align: center;">  Mostly another language (or other languages)/Only another language (or other languages) </div> </div>			
LANGUAGES SPOKEN			Number of students who answered "only English" or "mostly English"
		Percentage of Students*	
Languages student speaks at home		78 12 8	702
Languages in which people speak to student at home		71 11 12	643

* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# =902)		
USE OF THE ASSESSMENT IN CLASS MARKS		
Will your teacher count some or all parts of the Grade 9 Assessment of Mathematics as part of your class mark?	Percentage of Students*	Number of students
Yes	 74	665
No	 1	7
Don't know	 22	195
<i>Total number of students:</i>		665
Were you told how much the assessment will count as part of your class mark (e.g., 5%)? †	Percentage of Students*	Number of students
Yes	 97	647
No	 3	18
<i>Total number of students:</i>		665
Does counting the Grade 9 Assessment of Mathematics as part of your class mark motivate you to take the assessment more seriously? †	Percentage of Students*	Number of students
Yes	 85	565
No	 5	35
Undecided	 10	64

* Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

† Numbers and percentages are based on the number of students who indicated that their teacher will count some or all parts of the assessment as part of their class mark.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 902)	Female* (# = 452)	Male* (# = 450)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
STUDENTS' ATTITUDES TOWARD MATHEMATICS						
Percentage of students indicating they "agree" or "strongly agree" with the following statements: †						
I like mathematics.	57%	49%	66%	EC	EC	EC
I am good at mathematics.	56%	49%	64%	EC	EC	EC
I am able to answer difficult mathematics questions.	46%	37%	55%	EC	EC	EC
Mathematics is one of my favourite subjects.	40%	34%	47%	EC	EC	EC
I understand most of the mathematics I am taught.	73%	71%	76%	EC	EC	EC
Mathematics is an easy subject.	29%	23%	36%	EC	EC	EC
I do my best in mathematics class.	88%	93%	84%	EC	EC	EC
The mathematics I learn now is useful for everyday life.	33%	28%	37%	EC	EC	EC
The mathematics I learn now helps me do work in other subjects.	53%	51%	55%	EC	EC	EC
I need to do well in mathematics to study what I want later.	64%	61%	67%	EC	EC	EC
I need to keep taking mathematics for the kind of job I want after I leave school.	60%	56%	65%	EC	EC	EC
Percentage of students indicating they feel "confident" or "very confident" that they can answer mathematics questions related to the following: ‡						
number sense (e.g., operations with integers, rational numbers, exponents)	66%	58%	75%	EC	EC	EC
algebra (e.g., solving equations, simplifying expressions with polynomials)	66%	62%	70%	EC	EC	EC
linear relations (e.g., scatter plots, lines of best fit)	63%	61%	65%	EC	EC	EC
analytic geometry (e.g., slope, y-intercept, equations of lines)	61%	61%	61%	EC	EC	EC
measurement (e.g., perimeter, area, volume)	79%	74%	83%	EC	EC	EC
geometry (e.g., angles, parallel lines)	69%	66%	73%	EC	EC	EC

* Includes only students for whom gender data were available.

† Other response options were "strongly disagree," "disagree" and "neither agree nor disagree."

‡ Other response options were "not at all confident" and "somewhat confident."

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 902)	Female* (# = 452)	Male* (# = 450)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
DOING MATHEMATICS						
Percentage of students indicating they do the following “very often” when studying mathematics or working on a mathematics problem: †						
I connect new mathematics concepts to what I already know about mathematics or other subjects.	11%	10%	12%	EC	EC	EC
I check my mathematics answers to see if they make sense.	29%	33%	25%	EC	EC	EC
I apply new mathematics concepts to real-life problems.	6%	3%	8%	EC	EC	EC
I take time to discuss my mathematics assignments with my classmates.	9%	11%	8%	EC	EC	EC
I look for more than one way to solve mathematics problems.	14%	12%	16%	EC	EC	EC
Percentage of students indicating they complete their mathematics homework at the following frequencies: ‡						
I am not usually assigned any mathematics homework	1%	0%	1%	EC	EC	EC
Never or almost never	5%	2%	7%	EC	EC	EC
Sometimes	20%	15%	24%	EC	EC	EC
Often	37%	38%	37%	EC	EC	EC
Always	34%	42%	25%	EC	EC	EC

* Includes only students for whom gender data were available.

† Other response options were “never or almost never,” “sometimes” and “often.”

‡ Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 902)	Female* (# = 452)	Male* (# = 450)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
OUT-OF-SCHOOL ACTIVITIES						
Percentage of students indicating they do the following “every day or almost every day” when they are not at school: †						
I read by myself.	20%	25%	14%	EC	EC	EC
I use the Internet.	87%	88%	85%	EC	EC	EC
I play video games.	26%	5%	47%	EC	EC	EC
I participate in sports or other physical activities.	43%	37%	49%	EC	EC	EC
I participate in art, music or drama activities.	17%	21%	13%	EC	EC	EC
I participate in other clubs or organizations.	11%	11%	12%	EC	EC	EC
I volunteer in my community.	3%	4%	2%	EC	EC	EC
I work at a paid job.	2%	2%	3%	EC	EC	EC
SCHOOLS ATTENDED						
Percentage of students indicating the number of schools they attended from kindergarten to Grade 8: ‡						
1 school	47%	48%	46%	EC	EC	EC
2 schools	28%	28%	29%	EC	EC	EC
3 schools	11%	12%	10%	EC	EC	EC
4 schools	6%	5%	7%	EC	EC	EC
5 or more schools	5%	5%	5%	EC	EC	EC
LANGUAGES SPOKEN						
Percentage of students indicating that they speak the following languages at home: ‡						
Only English/Mostly English	78%	78%	78%	EC	EC	EC
Another language (or other languages) as often as English	12%	13%	10%	EC	EC	EC
Mostly another language (or other languages)/ Only another language (or other languages)	8%	6%	9%	EC	EC	EC
Percentage of students indicating the languages people speak to them at home: ‡						
Only English/Mostly English	71%	73%	69%	EC	EC	EC
Another language (or other languages) as often as English	11%	11%	11%	EC	EC	EC
Mostly another language (or other languages)/ Only another language (or other languages)	12%	10%	13%	EC	EC	EC

* Includes only students for whom gender data were available.

† Other response options were “never,” “1 or 2 times a month” and “1 to 3 times a week.”

‡ Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

Grade 9 Assessment of Mathematics, 2014–2015, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 902)	Female* (# = 452)	Male* (# = 450)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
USE OF THE ASSESSMENT IN CLASS MARKS						
Percentage of students indicating their teacher will count some or all parts of the Grade 9 Assessment of Mathematics as part of their class mark: †						
Yes	74%	75%	72%	EC	EC	EC
No	1%	<1%	1%	EC	EC	EC
Don't know	22%	21%	22%	EC	EC	EC
Percentage of students indicating they were told how much the assessment will count as part of their class mark: †‡						
	All Students (# = 665)	Female* (# = 341)	Male* (# = 324)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
Yes	97%	98%	96%	EC	EC	EC
No	3%	2%	4%	EC	EC	EC
Percentage of students indicating that counting the Grade 9 Assessment of Mathematics as part of their class mark motivates them to take the assessment more seriously: †‡						
	All Students (# = 665)	Female* (# = 341)	Male* (# = 324)	All Students (# = EC)	Female* (# = EC)	Male* (# = EC)
Yes	85%	90%	79%	EC	EC	EC
No	5%	3%	8%	EC	EC	EC
Undecided	10%	7%	13%	EC	EC	EC

* Includes only students for whom gender data were available.

† Percentages may not add up to 100, due to rounding or to ambiguous or blank responses.

‡ Numbers and percentages are based on the number of students who indicated that their teacher will count some or all parts of the assessment as part of their class mark.

Grade 9 Assessment of Mathematics, 2014–2015

EXPLANATION OF TERMS

All Students	Results are reported for all students in the course.
Participating Students	Results are reported only for those students who took part in the assessment (excludes the "no data" category).
Provincial Standard	The Ministry of Education, in <i>The Ontario Curriculum, Grades 9 and 10: Mathematics</i> , has set Level 3 as the provincial standard.
Level 4 (80–100%)	The student has demonstrated a very high to outstanding level of achievement. Achievement is <i>above</i> the provincial standard.
Level 3 (70–79%)	The student has demonstrated a high level of achievement. Achievement is <i>at</i> the provincial standard.
Level 2 (60–69%)	The student has demonstrated some of the required knowledge and skills. Achievement is <i>below, but approaching</i> , the provincial standard.
Level 1 (50–59%)	The student has demonstrated a passable level of achievement. Achievement is <i>below</i> the provincial standard.
Below Level 1/ Below L1	The student has not demonstrated sufficient achievement of curriculum expectations (below 50%).
No Data	Students who did not have a result due to absence or other reasons.
English Language Learners	Students who have been identified by the school in accordance with <i>English Language Learners: ESL and ELD Programs and Services: Policies and Procedures for Ontario Elementary and Secondary Schools, Kindergarten to Grade 12</i> (2007).
Students Receiving One or More Special Provisions	Students identified by the school as receiving special provisions. Detailed information about special provisions is available in EQAO's <i>Guide for Accommodations and Special Provisions</i> .
Students with Special Education Needs (excluding gifted)	Students who have been formally identified by an Identification, Placement and Review Committee, as well as students who have an Individual Education Plan. Students whose sole identified exceptionality is giftedness are not included.
Students Receiving One or More Accommodations	Students identified by the school as receiving accommodations. Detailed information about accommodations is available in EQAO's <i>Guide for Accommodations and Special Provisions</i> .
N/R	"Not reported" indicates that the number of students participating (fewer than 10 in a group) or responding to the Student Questionnaire (fewer than six in a group) is so small that identification of individual student results might be possible; therefore, results are not reported.
N/D	"No data available" is used to indicate that there were no students in the course for the years specified.
W	Results are being withheld by EQAO. For further information, please contact personnel at the board.
EC	Due to exceptional circumstances in 2015, provincial data are unavailable to report provincial results.
NP	Non-participating indicates that due to exceptional circumstances, some or all of the school's or board's students did not participate in 2015.