



# School Board Report



## Grade 9 Assessment of Mathematics, 2016–2017

### Board: Hastings and Prince Edward DSB (66222)

On behalf of EQAO, I am pleased to provide you with the results of the 2016–2017 Grade 9 Assessment of Mathematics. This report includes the 2016–2017 school and board results, as well as results from previous years, so you can track progress over time. You will also find demographic and attitudinal information, which provides context for interpreting achievement results.

By developing assessments that gauge student achievement against the learning expectations outlined in *The Ontario Curriculum*, EQAO ensures that every student in Ontario’s school system is assessed using the same yardstick at key stages in his or her schooling. In doing so, EQAO is able to provide reliable and objective data at the individual student, school and board levels that support educators in their professional practice.

Of course, the information that EQAO provides is not limited to student achievement results and also includes contextual, attitudinal and behavioural data. This wide range of data enables school and board communities to gain richer insights into students’ learning. By using EQAO data in conjunction with classroom and school-board information, educators across the province have been able to make evidence-based decisions in their planning and to monitor the progress of their initiatives. Because of this, EQAO data have served as a catalyst for improving student achievement since the inception of the agency, in 1996.

We hope you will find this report useful. It has been designed to assist you in your conversations about improving student learning. We look forward to continuing our partnership with you as we all work toward helping students meet, at the minimum, the provincial standard.

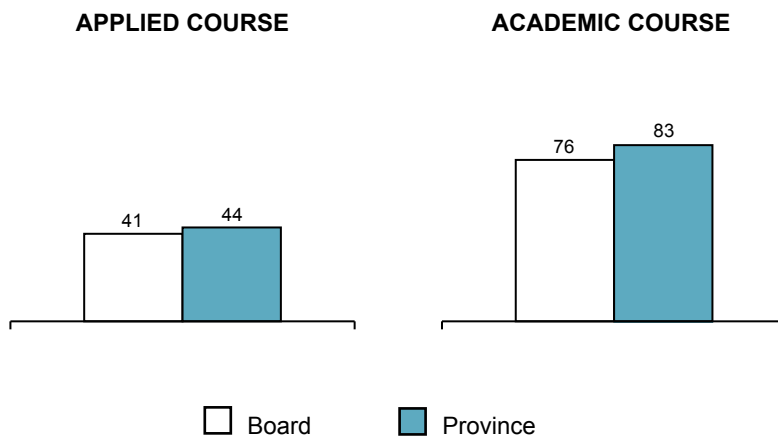
Sincerely,

Norah Marsh  
Chief Executive Officer  
Education Quality and Accountability Office

#### WHERE TO FIND ...

	PAGE	
	Applied	Academic
Percentages of all students at or above the provincial standard		
• 2016–2017 .....	1	1
• Over time .....	2	2
Tips for using this report .....	3	3
Contextual information: 2016–2017 .....	4	8
Results for groups of students: 2016–2017		
• All students .....	6	10
• Participating students .....	6	10
• Students by gender .....	7	11
Contextual information: Over time .....	12	15
Results for all students: Over time .....	14	17
Results for all students: Over time by gender .....	18	19
Student questionnaire results .....	20	29
Explanation of terms .....	38	38

### PERCENTAGE OF ALL STUDENTS AT OR ABOVE THE PROVINCIAL STANDARD (LEVELS 3 AND 4), 2016–2017



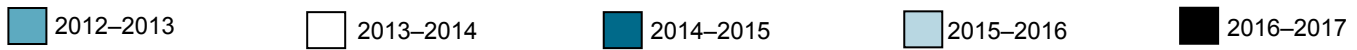
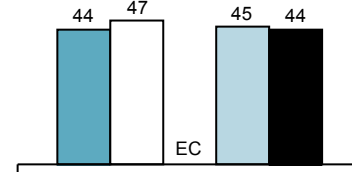
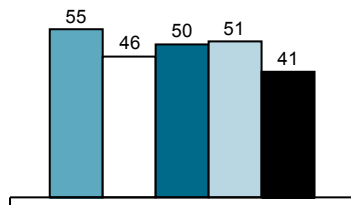
Grade 9 Assessment of Mathematics, 2016–2017

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

APPLIED MATHEMATICS

Board

Province



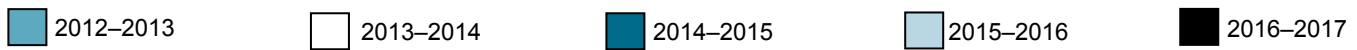
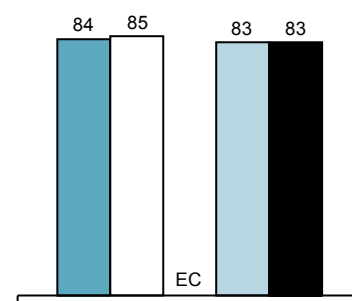
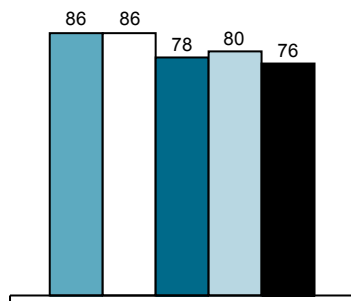
Total Number of Students

	<u>2012–2013</u>	<u>2013–2014</u>	<u>2014–2015</u>	<u>2015–2016</u>	<u>2016–2017</u>
Board	423	418	430	435	429
Province	39 881	38 181	EC	36 005	34 797

ACADEMIC MATHEMATICS

Board

Province



Total Number of Students

	<u>2012–2013</u>	<u>2013–2014</u>	<u>2014–2015</u>	<u>2015–2016</u>	<u>2016–2017</u>
Board	568	539	539	526	585
Province	97 158	95 914	EC	97 347	96 449

## Grade 9 Assessment of Mathematics, 2016–2017

## 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. Results are not reported publicly for schools or boards where fewer than 10 students participated because it might be possible to identify individual students.

## 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](http://www.eqao.com).

## Grade 9 Assessment of Mathematics, 2016–2017

## Contextual Information, Applied Course

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

	Board		Province	
<b>Enrolment</b>				
Number of students in applied mathematics course	429		34 797	
Number of classes with students in applied mathematics course	33		2 422	
Number of schools with applied mathematics classes	9		701	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>Participation in the Assessment</b>				
Students who participated in the assessment	406	95%	33 405	96%
Participating students who received one or more accommodations*	130	32%	11 932	36%
Participating students who received one or more special provisions*	0	0%	2 738	8%
Students who did not complete any part of the assessment (no data)*	23	5%	1 392	4%
<b>Gender<sup>†</sup> Based on number of students enrolled</b>				
Female	198	46%	15 212	44%
Male	231	54%	19 585	56%
Gender not specified	0	0%	0	0%
<b>Student Status<sup>†</sup> Based on number of students enrolled</b>				
English language learners*	0	0%	3 802	11%
Students with special education needs (excluding gifted)*	162	38%	14 384	41%
<b>Semester/Full Year Based on number of students enrolled</b>				
First-semester course	236	55%	15 803	45%
Second-semester course	188	44%	16 811	48%
Full-year course	5	1%	2 183	6%
<b>Language and School Background<sup>††</sup> Based on Student Questionnaire data</b>				
	Number of Respondents:		368	30 066
Speak only or mostly a language other than English at home	3	1%	1 997	7%
Speak another language as often as English at home	15	4%	3 913	13%
Attended three or more elementary schools from kindergarten to Grade 8	157	43%	11 666	39%

\* 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, 2016–2017

**Contextual Information, Applied Course (continued)**

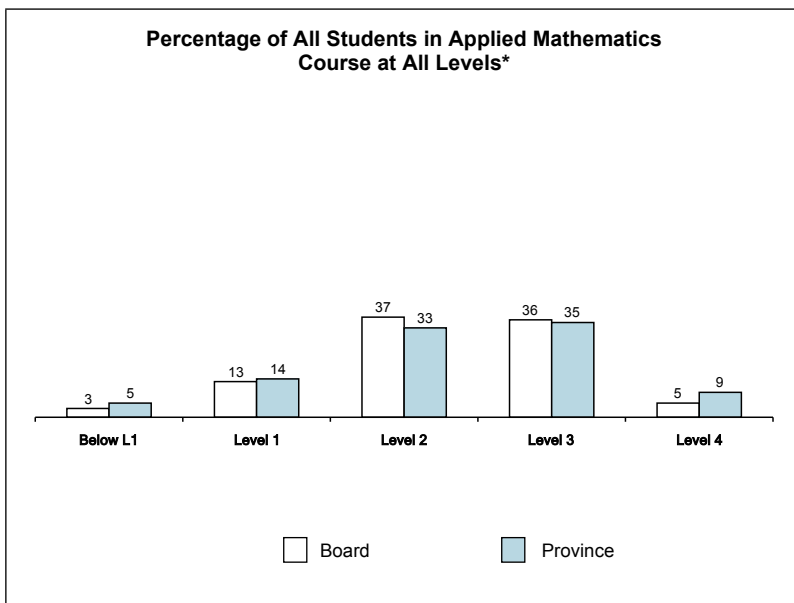
	Board		Province	
	Number	Percent	Number	Percent
<b>Year Student Entered Current School†</b>				
Year of the assessment	403	94%	29 843	86%
Year prior to the assessment	26	6%	2 886	8%
2 years prior to the assessment	0	0%	622	2%
3 or more years prior to the assessment	0	0%	1 265	4%
Data not available	0	0%	181	1%
<b>Year Student Entered Current Board†</b>				
Year of the assessment	40	9%	5 494	16%
Year prior to the assessment	9	2%	2 330	7%
2 years prior to the assessment	10	2%	1 507	4%
3 or more years prior to the assessment	150	35%	23 793	68%
Data not available	220	51%	1 673	5%

† Contextual data are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by schools or boards.

Grade 9 Assessment of Mathematics, 2016–2017

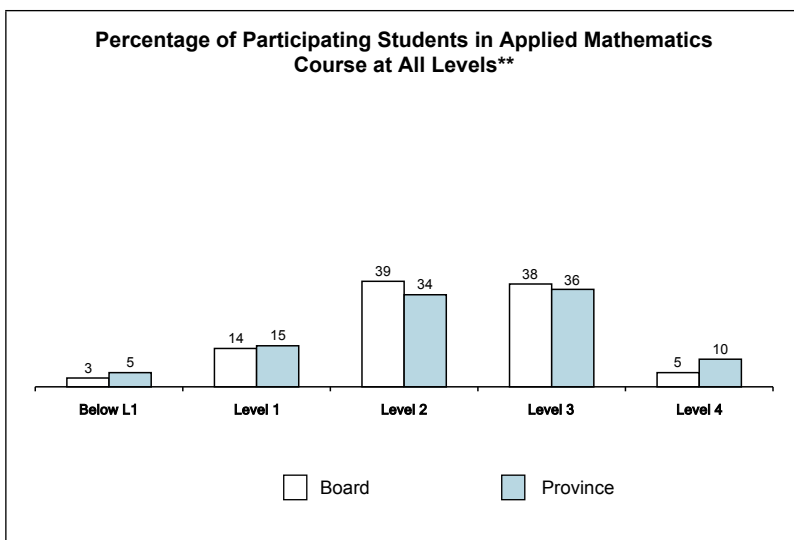
**Results for All Students, Applied Course**

All Students*			
Number of Students	Board 429		Province 34 797
	#	%	%
Level 4	20	5%	9%
Level 3	156	36%	35%
Level 2	160	37%	33%
Level 1	56	13%	14%
Below Level 1	14	3%	5%
Participating Students	406	95%	96%
No Data	23	5%	4%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>		<b>41%</b>	<b>44%</b>



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

Participating Students**			
Number of Students	Board 406		Province 33 405
	#	%	%
Level 4	20	5%	10%
Level 3	156	38%	36%
Level 2	160	39%	34%
Level 1	56	14%	15%
Below Level 1	14	3%	5%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>		<b>43%</b>	<b>46%</b>

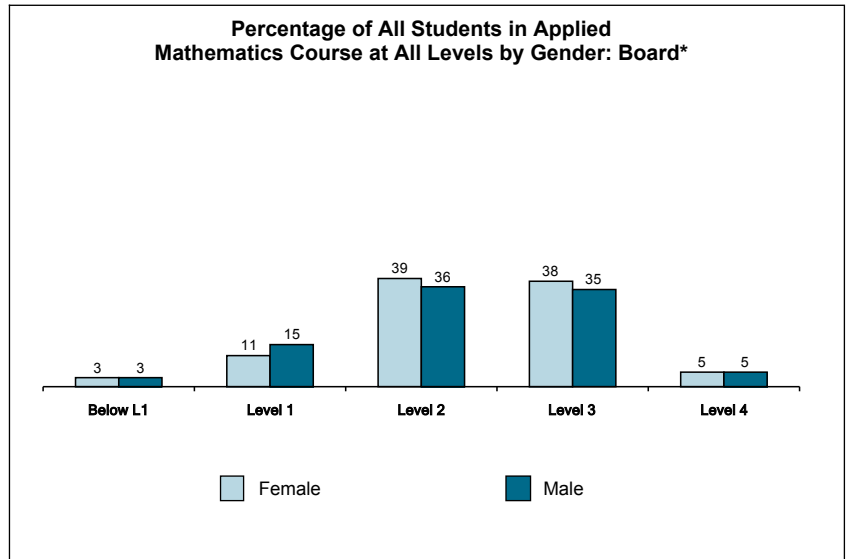


\* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.  
 \*\* Because percentages in tables and graphs are rounded, percentages may not add up to 100.  
 † These percentages are based on the actual number of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

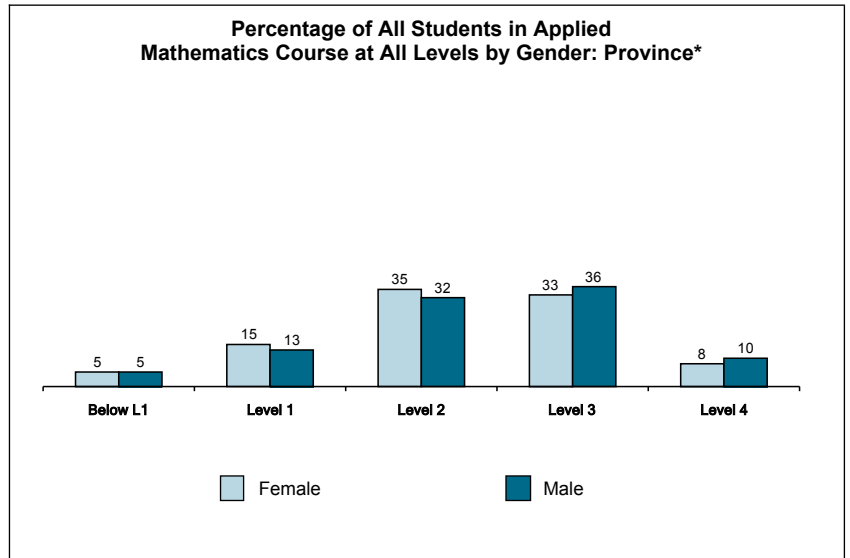
Grade 9 Assessment of Mathematics, 2016–2017

Results by Gender<sup>††</sup>, Applied Course

All Students: Board by Gender*				
Number of Students	Female 198		Male 231	
	#	%	#	%
Level 4	9	5%	11	5%
Level 3	75	38%	81	35%
Level 2	77	39%	83	36%
Level 1	21	11%	35	15%
Below Level 1	6	3%	8	3%
Participating Students	188	95%	218	94%
No Data	10	5%	13	6%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>	42%		40%	



All Students: Province by Gender*				
Number of Students	Female 15 212		Male 19 585	
	#	%	#	%
Level 4	1 251	8%	1 934	10%
Level 3	5 023	33%	7 113	36%
Level 2	5 299	35%	6 204	32%
Level 1	2 308	15%	2 589	13%
Below Level 1	720	5%	964	5%
Participating Students	14 601	96%	18 804	96%
No Data	611	4%	781	4%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>	41%		46%	



\* 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, 2016–2017

**Contextual Information, Academic Course**

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

	Board		Province	
<b>Enrolment</b>				
Number of students in academic mathematics course	585		96 449	
Number of classes with students in academic mathematics course	25		4 197	
Number of schools with academic mathematics classes	8		682	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>Participation in the Assessment</b>				
Students who participated in the assessment	582	99%	95 447	99%
Participating students who received one or more accommodations*	36	6%	6 408	7%
Participating students who received one or more special provisions*	2	<1%	4 478	5%
Students who did not complete any part of the assessment (no data)*	3	1%	1 002	1%
<b>Gender<sup>†</sup> Based on number of students enrolled</b>				
Female	312	53%	49 388	51%
Male	273	47%	47 061	49%
Gender not specified	0	0%	0	0%
<b>Student Status<sup>†</sup> Based on number of students enrolled</b>				
English language learners*	2	<1%	6 642	7%
Students with special education needs (excluding gifted)*	52	9%	7 561	8%
<b>Semester/Full Year Based on number of students enrolled</b>				
First-semester course	331	57%	43 562	45%
Second-semester course	254	43%	43 082	45%
Full-year course	0	0%	9 805	10%
<b>Language and School Background<sup>††</sup> Based on Student Questionnaire data</b>				
	<b>Number of Respondents:</b>			
	567		89 743	
Speak only or mostly a language other than English at home	15	3%	7 826	9%
Speak another language as often as English at home	29	5%	14 871	17%
Attended three or more elementary schools from kindergarten to Grade 8	159	28%	31 014	35%

\* 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, 2016–2017

**Contextual Information, Academic Course (continued)**

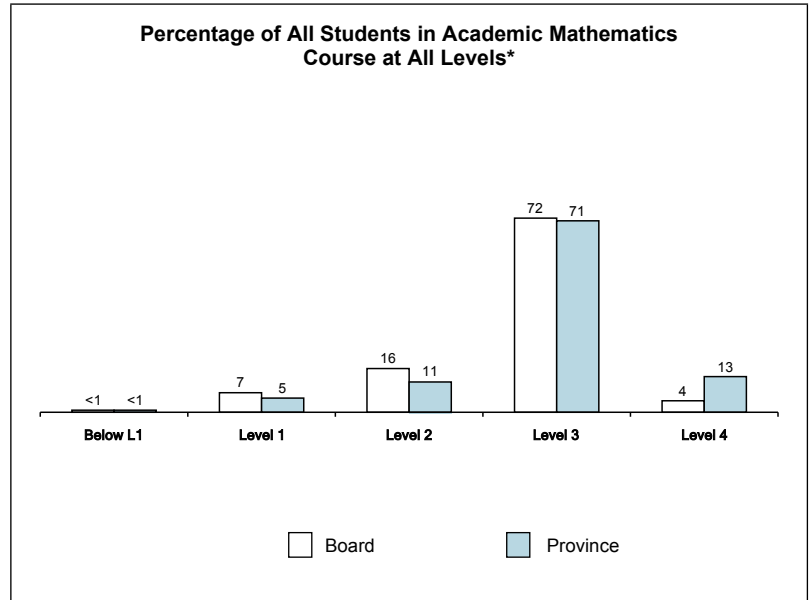
	Board		Province	
	Number	Percent	Number	Percent
<b>Year Student Entered Current School†</b>				
Year of the assessment	581	99%	92 083	95%
Year prior to the assessment	4	1%	1 410	1%
2 years prior to the assessment	0	0%	625	1%
3 or more years prior to the assessment	0	0%	2 150	2%
Data not available	0	0%	181	<1%
<b>Year Student Entered Current Board†</b>				
Year of the assessment	82	14%	15 036	16%
Year prior to the assessment	10	2%	3 693	4%
2 years prior to the assessment	19	3%	3 616	4%
3 or more years prior to the assessment	190	32%	69 457	72%
Data not available	284	49%	4 647	5%

† Contextual data are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by schools or boards.

Grade 9 Assessment of Mathematics, 2016–2017

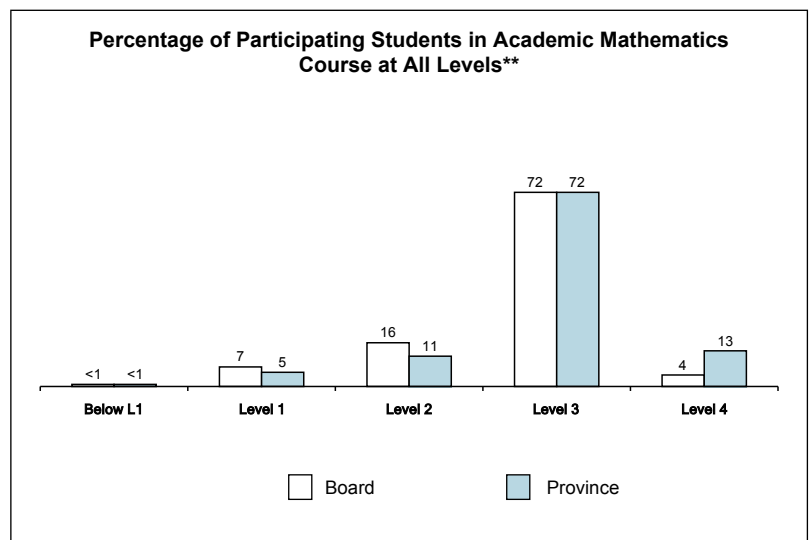
**Results for All Students, Academic Course**

All Students*			
Number of Students	Board 585		Province 96 449
	#	%	%
Level 4	25	4%	13%
Level 3	419	72%	71%
Level 2	94	16%	11%
Level 1	43	7%	5%
Below Level 1	1	<1%	<1%
Participating Students	582	99%	99%
No Data	3	1%	1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>		<b>76%</b>	<b>83%</b>



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

Participating Students**			
Number of Students	Board 582		Province 95 447
	#	%	%
Level 4	25	4%	13%
Level 3	419	72%	72%
Level 2	94	16%	11%
Level 1	43	7%	5%
Below Level 1	1	<1%	<1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>		<b>76%</b>	<b>84%</b>

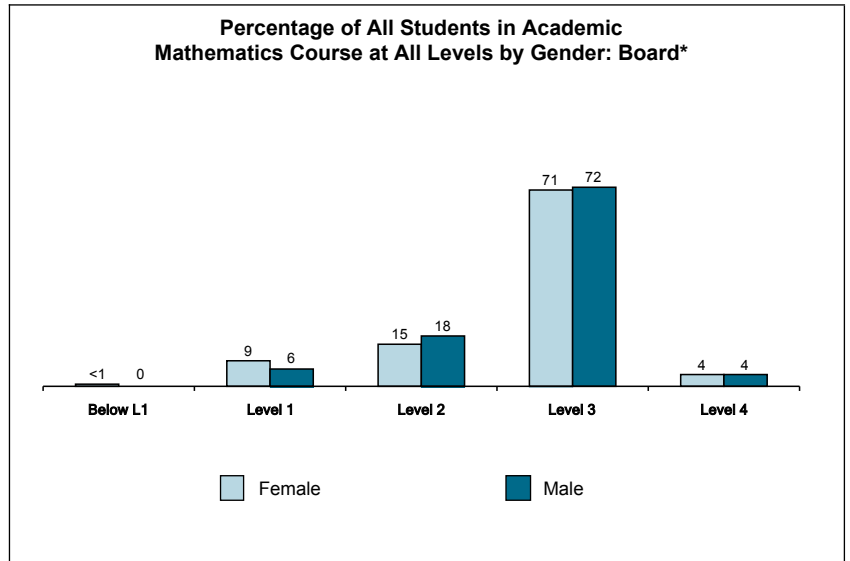


\* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.  
 \*\* Because percentages in tables and graphs are rounded, percentages may not add up to 100.  
 † These percentages are based on the actual number of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

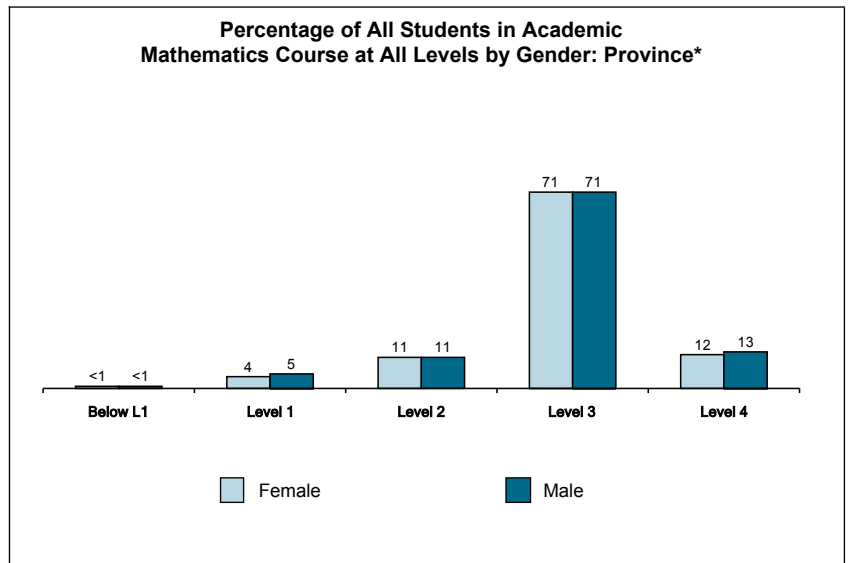
Grade 9 Assessment of Mathematics, 2016–2017

Results by Gender<sup>††</sup>, Academic Course

All Students: Board by Gender*				
Number of Students	Female 312		Male 273	
	#	%	#	%
Level 4	14	4%	11	4%
Level 3	223	71%	196	72%
Level 2	46	15%	48	18%
Level 1	27	9%	16	6%
Below Level 1	1	<1%	0	0%
Participating Students	311	100%	271	99%
No Data	1	<1%	2	1%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>		76%	76%	



All Students: Province by Gender*				
Number of Students	Female 49 388		Male 47 061	
	#	%	#	%
Level 4	6 033	12%	6 061	13%
Level 3	35 075	71%	33 181	71%
Level 2	5 416	11%	5 017	11%
Level 1	2 178	4%	2 175	5%
Below Level 1	131	<1%	180	<1%
Participating Students	48 833	99%	46 614	99%
No Data	555	1%	447	1%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>		83%	83%	



\* 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, 2016–2017

## Contextual Information over Time: Applied Course

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

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
<b>Enrolment</b>					
Number of students in applied mathematics course	423	418	430	435	429
Number of classes with students in applied mathematics course	27	28	31	28	33
Number of schools with applied mathematics classes	9	9	9	9	9
<b>Participation in the Assessment</b>					
Students who participated in the assessment	96%	96%	95%	96%	95%
Participating students who received one or more accommodations*	26%	28%	24%	27%	32%
Participating students who received one or more special provisions*	0%	0%	0%	0%	0%
Students who did not complete any part of the assessment (no data)*	4%	4%	5%	4%	5%
<b>Gender† Based on number of students enrolled</b>					
Female	43%	49%	46%	50%	46%
Male	57%	51%	54%	50%	54%
Gender not specified	0%	0%	0%	0%	0%
<b>Student Status† Based on number of students enrolled</b>					
English language learners*	<1%	0%	0%	0%	0%
Students with special education needs (excluding gifted)*	29%	32%	32%	34%	38%
<b>Semester/Full Year Based on number of students enrolled</b>					
First-semester course	51%	46%	47%	48%	55%
Second-semester course	46%	53%	51%	51%	44%
Full-year course	3%	1%	1%	1%	1%
<b>Language and School Background†† Based on Student Questionnaire data</b>					
Number of Respondents:	368	356	374	389	368
Speak only or mostly a language other than English at home	1%	1%	1%	1%	1%
Speak another language as often as English at home	3%	3%	3%	3%	4%
Attended three or more elementary schools from kindergarten to Grade 8	42%	37%	39%	36%	43%

\* 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, 2016–2017

**Contextual Information over Time: Applied Course (continued)**

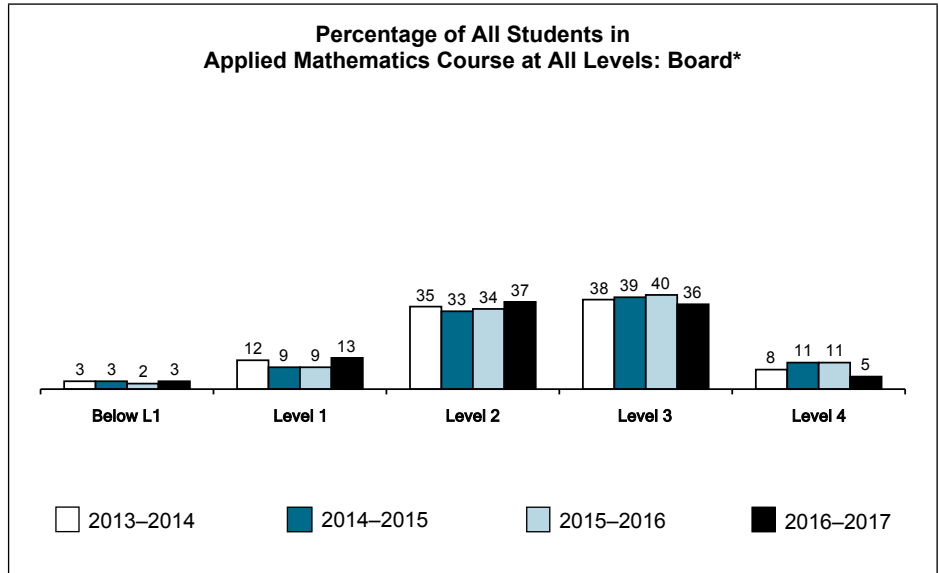
	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
<b>Year Student Entered Current School†</b>					
Year of the assessment				89%	94%
Year prior to the assessment				9%	6%
2 years prior to the assessment			These items were added in 2015–2016.	1%	0%
3 or more years prior to the assessment				0%	0%
Data not available				0%	0%
<b>Year Student Entered Current Board†</b>					
Year of the assessment				7%	9%
Year prior to the assessment				3%	2%
2 years prior to the assessment			These items were added in 2015–2016.	3%	2%
3 or more years prior to the assessment				41%	35%
Data not available				47%	51%

† Contextual data are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by schools or boards.

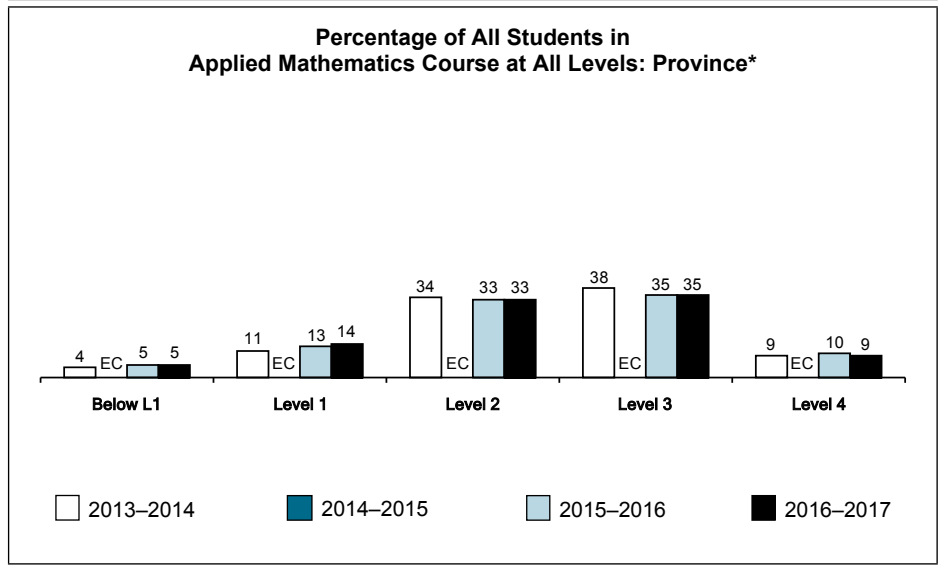
Grade 9 Assessment of Mathematics, 2016–2017

Results for All Students over Time: Applied Course

Board*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	418	430	435	429
Level 4	8%	11%	11%	5%
Level 3	38%	39%	40%	36%
Level 2	35%	33%	34%	37%
Level 1	12%	9%	9%	13%
Below Level 1	3%	3%	2%	3%
<i>Participating Students</i>	96%	95%	96%	95%
No Data	4%	5%	4%	5%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>46%</b>	<b>50%</b>	<b>51%</b>	<b>41%</b>



Province*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	38 181	EC	36 005	34 797
Level 4	9%	EC	10%	9%
Level 3	38%	EC	35%	35%
Level 2	34%	EC	33%	33%
Level 1	11%	EC	13%	14%
Below Level 1	4%	EC	5%	5%
<i>Participating Students</i>	96%	EC	96%	96%
No Data	4%	EC	4%	4%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>47%</b>	<b>EC</b>	<b>45%</b>	<b>44%</b>



\* 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, 2016–2017

## Contextual Information over Time: Academic Course

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

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
<b>Enrolment</b>					
Number of students in academic mathematics course	568	539	539	526	585
Number of classes with students in academic mathematics course	29	28	24	23	25
Number of schools with academic mathematics classes	8	9	8	8	8
<b>Participation in the Assessment</b>					
Students who participated in the assessment	99%	100%	99%	99%	99%
Participating students who received one or more accommodations*	5%	4%	5%	5%	6%
Participating students who received one or more special provisions*	1%	0%	0%	0%	<1%
Students who did not complete any part of the assessment (no data)*	1%	<1%	1%	1%	1%
<b>Gender† Based on number of students enrolled</b>					
Female	53%	55%	55%	55%	53%
Male	47%	45%	45%	45%	47%
Gender not specified	0%	0%	0%	0%	0%
<b>Student Status† Based on number of students enrolled</b>					
English language learners*	1%	<1%	0%	0%	<1%
Students with special education needs (excluding gifted)*	5%	5%	6%	6%	9%
<b>Semester/Full Year Based on number of students enrolled</b>					
First-semester course	43%	53%	44%	48%	57%
Second-semester course	53%	47%	56%	52%	43%
Full-year course	4%	<1%	0%	0%	0%
<b>Language and School Background†† Based on Student Questionnaire data</b>					
Number of Respondents:	540	513	523	499	567
Speak only or mostly a language other than English at home	2%	3%	2%	2%	3%
Speak another language as often as English at home	5%	7%	4%	4%	5%
Attended three or more elementary schools from kindergarten to Grade 8	31%	31%	32%	29%	28%

\* 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, 2016–2017

**Contextual Information over Time: Academic Course (continued)**

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
<b>Year Student Entered Current School<sup>†</sup></b>					
Year of the assessment				99%	99%
Year prior to the assessment				1%	1%
2 years prior to the assessment			These items were added in 2015–2016.	0%	0%
3 or more years prior to the assessment				0%	0%
Data not available				0%	0%
<b>Year Student Entered Current Board<sup>†</sup></b>					
Year of the assessment				12%	14%
Year prior to the assessment				3%	2%
2 years prior to the assessment			These items were added in 2015–2016.	3%	3%
3 or more years prior to the assessment				38%	32%
Data not available				44%	49%

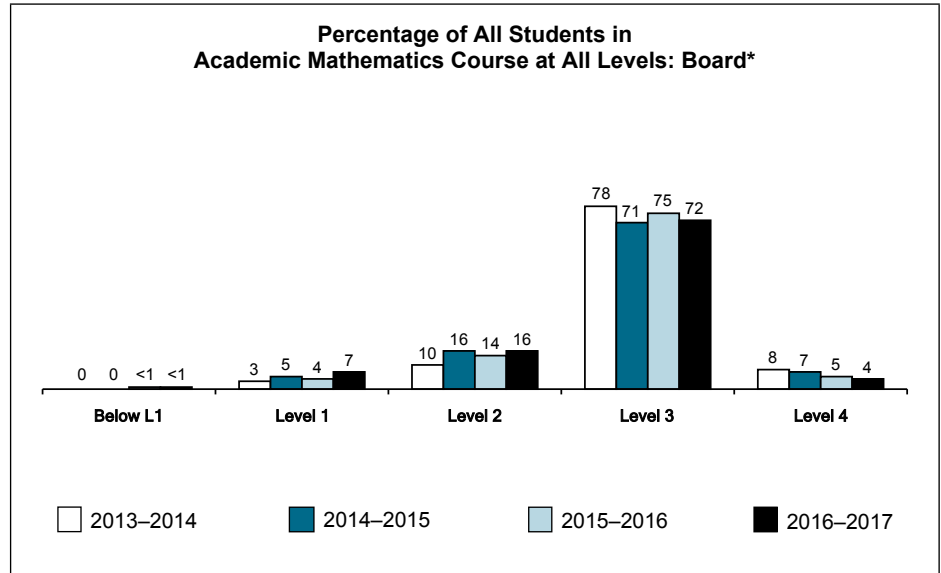
<sup>†</sup> Contextual data are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by schools or boards.



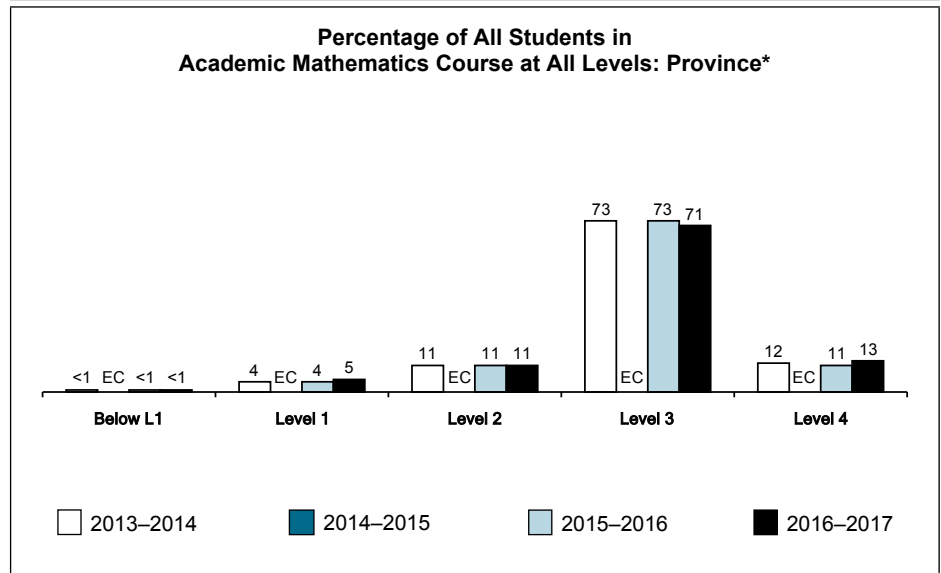
Grade 9 Assessment of Mathematics, 2016–2017

Results for All Students over Time: Academic Course

Board*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	539	539	526	585
Level 4	8%	7%	5%	4%
Level 3	78%	71%	75%	72%
Level 2	10%	16%	14%	16%
Level 1	3%	5%	4%	7%
Below Level 1	0%	0%	<1%	<1%
<i>Participating Students</i>	100%	99%	99%	99%
No Data	<1%	1%	1%	1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>86%</b>	<b>78%</b>	<b>80%</b>	<b>76%</b>



Province*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	95 914	EC	97 347	96 449
Level 4	12%	EC	11%	13%
Level 3	73%	EC	73%	71%
Level 2	11%	EC	11%	11%
Level 1	4%	EC	4%	5%
Below Level 1	<1%	EC	<1%	<1%
<i>Participating Students</i>	99%	EC	99%	99%
No Data	1%	EC	1%	1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>85%</b>	<b>EC</b>	<b>83%</b>	<b>83%</b>



\* 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.

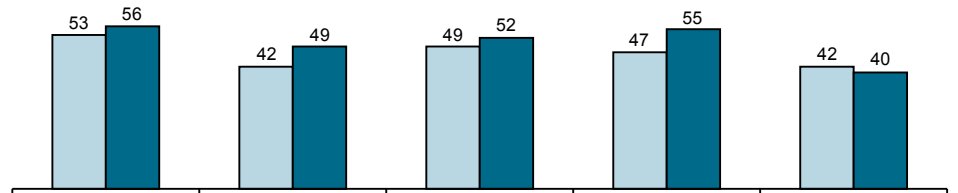
Grade 9 Assessment of Mathematics, 2016–2017

RESULTS FOR ALL STUDENTS OVER TIME BY GENDER†

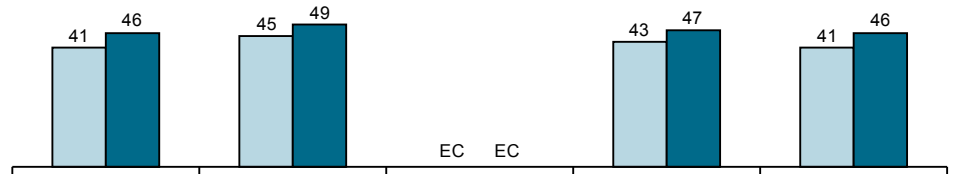
Percentage of Students At or Above the Provincial Standard (Levels 3 and 4):  
APPLIED COURSE

2012–2013      2013–2014      2014–2015      2015–2016      2016–2017

BOARD



PROVINCE



Female Male

Total Number of Students in Applied Mathematics Course†

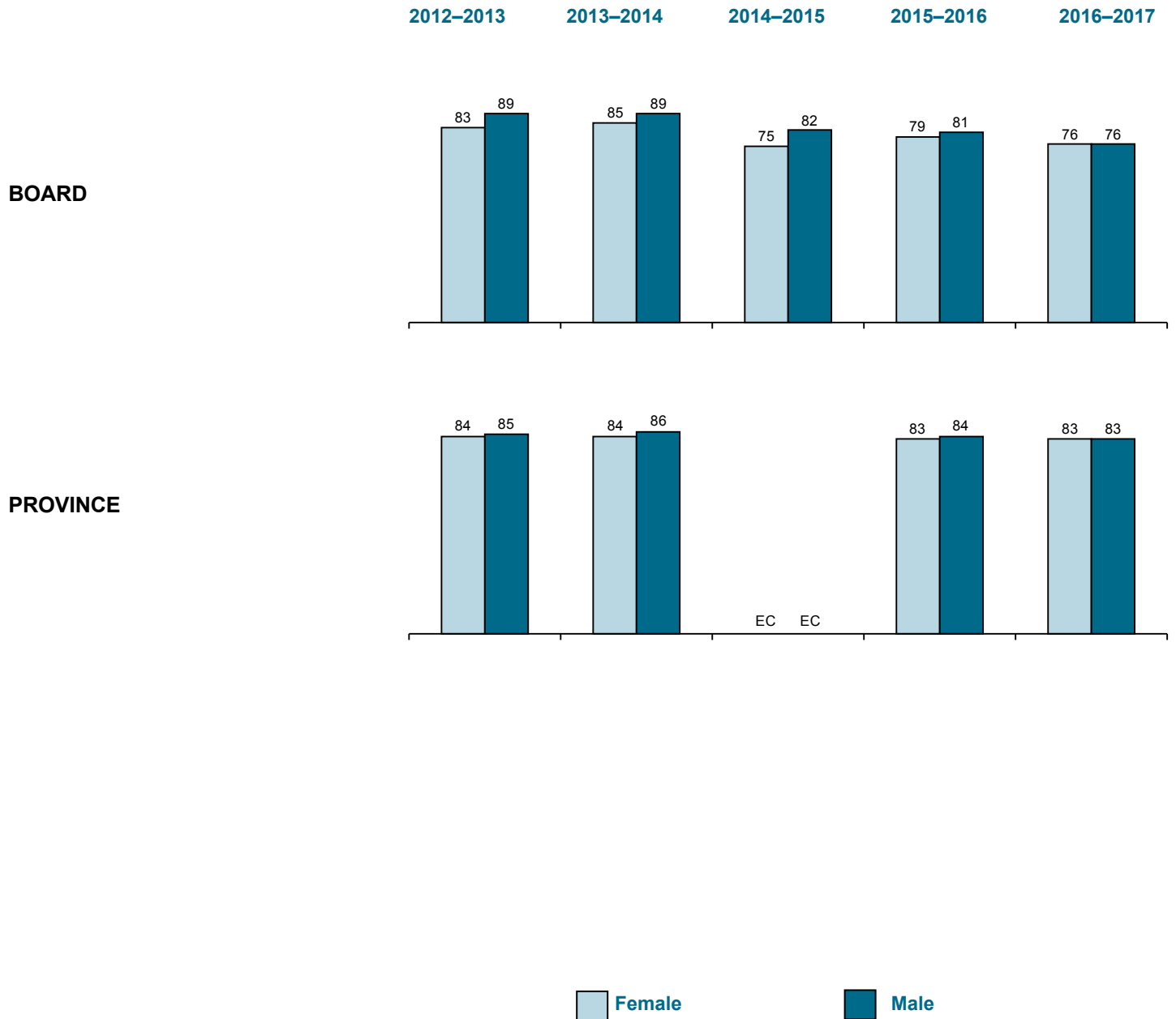
	2012–2013		2013–2014		2014–2015		2015–2016		2016–2017	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Board	184	239	203	215	197	233	216	219	198	231
Province	17 695	22 181	16 662	21 519	EC	EC	15 748	20 257	15 212	19 585

† Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2016–2017

RESULTS FOR ALL STUDENTS OVER TIME BY GENDER†

Percentage of Students At or Above the Provincial Standard (Levels 3 and 4):  
ACADEMIC COURSE




	Total Number of Students in Academic Mathematics Course†									
	2012–2013		2013–2014		2014–2015		2015–2016		2016–2017	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Board	301	267	295	244	299	240	287	239	312	273
Province	49 986	47 171	49 157	46 757	EC	EC	49 817	47 530	49 388	47 061

† Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 368)

 Strongly Disagree/Disagree


 Neither agree nor disagree

 Agree/Strongly agree

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.	26	35	39	142
I am good at mathematics.	31	34	34	126
I am able to answer difficult mathematics questions.	32	41	25	92
Mathematics is one of my favourite subjects.	57	20	22	81
I understand most of the mathematics I am taught.	13	27	60	219
Mathematics is an easy subject.	40	39	19	69
I do my best in mathematics class.	8	19	72	266
The mathematics I learn now is useful for everyday life.	32	33	34	124
The mathematics I learn now helps me do work in other subjects.	21	27	51	189
I need to do well in mathematics to study what I want later.	17	31	50	185
I need to keep taking mathematics for the kind of job I want after I leave school.	20	35	43	159

 Not at all confident

 Somewhat confident





 Confident

 Very confident

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)	8	55	29	5	20
algebra (e.g., solving equations, simplifying expressions with polynomials)	19	46	24	9	34
linear relations (e.g., scatter plots, lines of best fit)	7	37	38	16	60
measurement (e.g., perimeter, area, volume)	5	25	41	25	93
geometry (e.g., angles, parallel lines)	14	36	30	18	66

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

Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 368)					
	 Never or almost never	 Sometimes	 Often	 Very Often	
<b>DOING MATHEMATICS</b>					
How often do you do the following when studying mathematics or working on a mathematics problem?				<i>Number of students who answered "very often"</i>	
	<b>Percentage of Students*</b>				
I connect new mathematics concepts to what I already know about mathematics or other subjects.	13	60	20	4	16
I check my mathematics answers to see if they make sense.	4	32	47	16	58
I apply new mathematics concepts to real-life problems.	32	45	16	4	16
I take time to discuss my mathematics assignments with my classmates.	31	46	15	6	21
I look for more than one way to solve mathematics problems.	13	45	29	10	36
How often do you complete your mathematics homework?				<i>Number of students</i>	
<b>Percentage of Students*</b>					
I am not usually assigned any mathematics homework	12				44
Never or almost never	11				41
Sometimes		32			119
Often			26		96
Always				11	39

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

Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 368)

Never

1 or 2 times a month

1 to 3 times a week

Every day or almost every day

OUT-OF-SCHOOL ACTIVITIES

How often do you do the following when you are not at school?

Percentage of Students\*

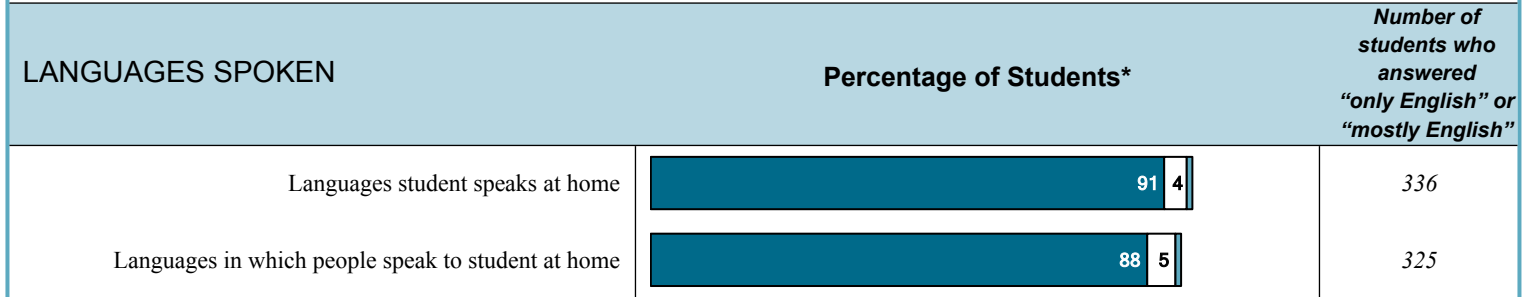
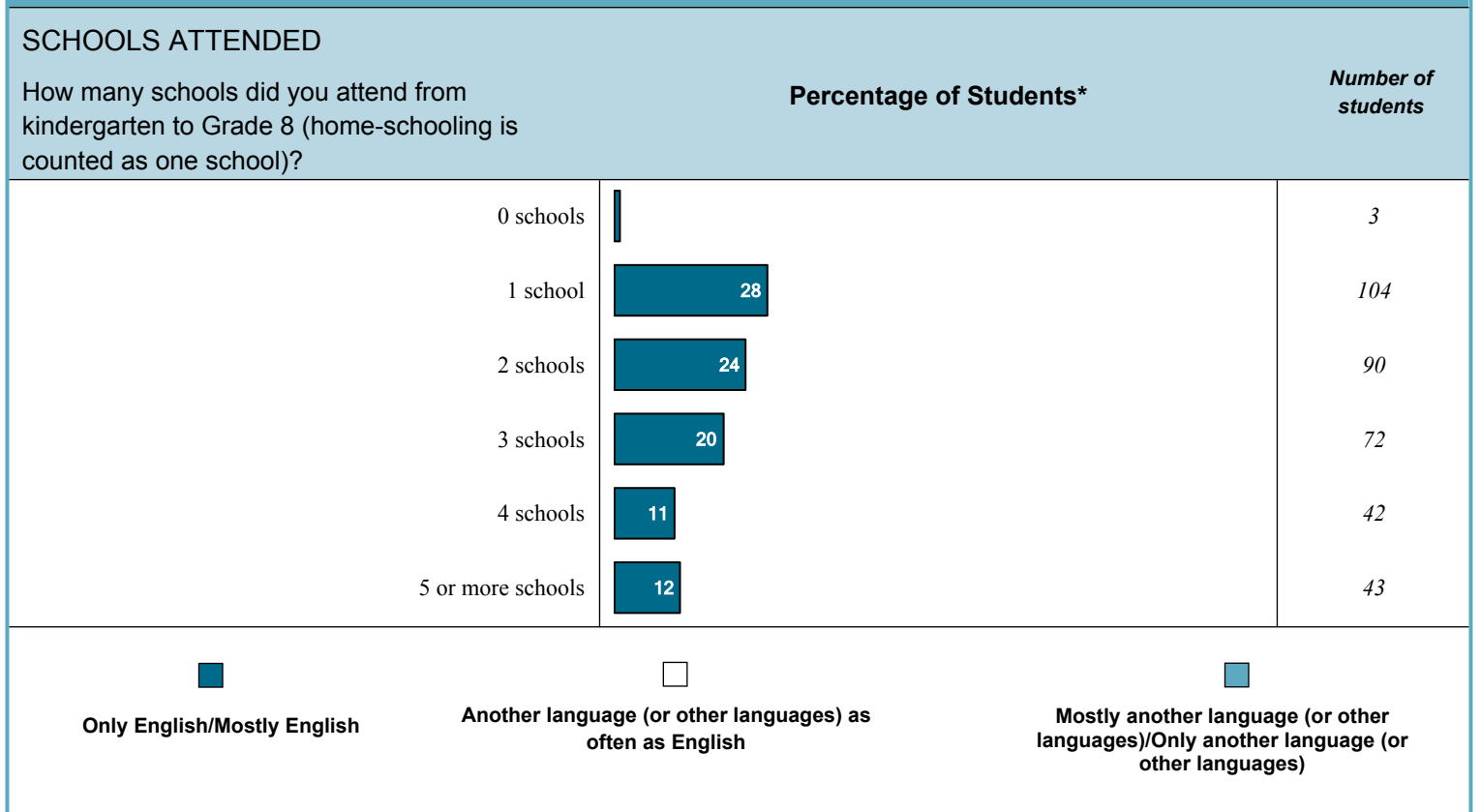
Number of students who answered "every day or almost every day"

Activity	Never	1 or 2 times a month	1 to 3 times a week	Every day or almost every day	Number of students who answered "every day or almost every day"
I read by myself.	29	30	19	19	70
I use the Internet.	7			88	324
I play video games.	19	21	24	33	123
I participate in sports or other physical activities.	14	20	30	32	119
I participate in art, music or drama activities.	44	18	15	20	73
I participate in other clubs or organizations.	56	20	14	7	25
I volunteer in my community.	40	35	16	5	18
I work at a paid job.	63	9	17	10	35

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









Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 368)



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

Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 368)		
<b>USE OF THE ASSESSMENT IN CLASS MARKS</b>		
Will your teacher count some or all parts of the Grade 9 Assessment of Mathematics as part of your class mark?	<b>Percentage of Students*</b>	<b>Number of students</b>
Yes	 39	144
No	 2	2
Don't know	 55	203
<i>Total number of students</i>		<b>144</b>
Were you told how much the assessment will count as part of your class mark (e.g., 5%)? †	<b>Percentage of Students*</b>	<b>Number of students</b>
Yes	 90	130
No	 8	12
<i>Total number of students</i>		<b>144</b>
Does counting the Grade 9 Assessment of Mathematics as part of your class mark motivate you to take the assessment more seriously?†	<b>Percentage of Students*</b>	<b>Number of students</b>
Yes	 74	107
No	 6	9
Undecided	 18	26

\* Percentages may not add up to 100, due to rounding or to missing 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, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 368)	Female* (# = 169)	Male* (# = 199)	All Students (# = 30 066)	Female* (# = 13 280)	Male* (# = 16 786)
<b>STUDENTS' ATTITUDES TOWARD MATHEMATICS</b>						
Percentage of students indicating they "agree" or "strongly agree" with the following statements:†						
I like mathematics.	<b>39%</b>	37%	40%	<b>36%</b>	31%	40%
I am good at mathematics.	<b>34%</b>	22%	45%	<b>35%</b>	27%	41%
I am able to answer difficult mathematics questions.	<b>25%</b>	15%	33%	<b>24%</b>	16%	31%
Mathematics is one of my favorite subjects.	<b>22%</b>	20%	24%	<b>21%</b>	18%	24%
I understand most of the mathematics I am taught.	<b>60%</b>	53%	65%	<b>61%</b>	56%	64%
Mathematics is an easy subject.	<b>19%</b>	14%	23%	<b>18%</b>	13%	22%
I do my best in mathematics class.	<b>72%</b>	77%	68%	<b>69%</b>	72%	66%
The mathematics I learn now is useful for everyday life.	<b>34%</b>	28%	39%	<b>34%</b>	31%	37%
The mathematics I learn now helps me do work in other subjects.	<b>51%</b>	48%	54%	<b>47%</b>	45%	48%
I need to do well in mathematics to study what I want later.	<b>50%</b>	43%	56%	<b>50%</b>	47%	53%
I need to keep taking mathematics for the kind of job I want after I leave school.	<b>43%</b>	39%	47%	<b>43%</b>	41%	45%
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)	<b>35%</b>	26%	42%	<b>41%</b>	33%	47%
algebra (e.g., solving equations, simplifying expressions with polynomials)	<b>33%</b>	30%	37%	<b>43%</b>	40%	45%
linear relations (e.g., scatter plots, lines of best fit)	<b>54%</b>	46%	60%	<b>56%</b>	51%	60%
measurement (e.g., perimeter, area, volume)	<b>67%</b>	63%	69%	<b>68%</b>	64%	70%
geometry (e.g., angles, parallel lines)	<b>48%</b>	40%	54%	<b>47%</b>	41%	52%

\* 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, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 368)	Female* (# = 169)	Male* (# = 199)	All Students (# = 30 066)	Female* (# = 13 280)	Male* (# = 16 786)
<b>DOING MATHEMATICS</b>						
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.	<b>4%</b>	3%	6%	<b>4%</b>	4%	4%
I check my mathematics answers to see if they make sense.	<b>16%</b>	14%	18%	<b>16%</b>	17%	14%
I apply new mathematics concepts to real-life problems.	<b>4%</b>	3%	6%	<b>4%</b>	3%	4%
I take time to discuss my mathematics assignments with my classmates.	<b>6%</b>	5%	6%	<b>5%</b>	5%	4%
I look for more than one way to solve mathematics problems.	<b>10%</b>	6%	13%	<b>10%</b>	9%	11%
Percentage of students indicating they complete their mathematics homework at the following frequencies:‡						
I am not usually assigned any mathematics homework	<b>12%</b>	9%	15%	<b>12%</b>	11%	13%
Never or almost never	<b>11%</b>	9%	13%	<b>7%</b>	5%	8%
Sometimes	<b>32%</b>	34%	31%	<b>27%</b>	25%	29%
Often	<b>26%</b>	25%	27%	<b>29%</b>	30%	29%
Always	<b>11%</b>	15%	7%	<b>17%</b>	20%	14%

\* 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 missing responses.

## Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 368)	Female* (# = 169)	Male* (# = 199)	All Students (# = 30 066)	Female* (# = 13 280)	Male* (# = 16 786)
<b>OUT-OF-SCHOOL ACTIVITIES</b>						
Percentage of students indicating they do the following “every day or almost every day” when they are not at school:‡						
I read by myself.	<b>19%</b>	25%	14%	<b>15%</b>	22%	11%
I use the Internet.	<b>88%</b>	90%	86%	<b>85%</b>	88%	84%
I play video games.	<b>33%</b>	14%	50%	<b>30%</b>	12%	45%
I participate in sports or other physical activities.	<b>32%</b>	24%	39%	<b>36%</b>	25%	44%
I participate in art, music or drama activities.	<b>20%</b>	22%	18%	<b>18%</b>	25%	13%
I participate in other clubs or organizations.	<b>7%</b>	6%	8%	<b>9%</b>	8%	10%
I volunteer in my community.	<b>5%</b>	5%	5%	<b>5%</b>	5%	5%
I work at a paid job.	<b>10%</b>	9%	10%	<b>7%</b>	6%	8%
<b>SCHOOLS ATTENDED</b>						
Percentage of students indicating the number of schools they attended from kindergarten to Grade 8 (home-schooling is counted as one school):‡						
0 schools	<b>1%</b>	0%	2%	<b>2%</b>	2%	2%
1 school	<b>28%</b>	27%	30%	<b>25%</b>	24%	26%
2 schools	<b>24%</b>	26%	23%	<b>28%</b>	28%	29%
3 schools	<b>20%</b>	20%	20%	<b>18%</b>	19%	18%
4 schools	<b>11%</b>	12%	11%	<b>10%</b>	11%	9%
5 or more schools	<b>12%</b>	13%	11%	<b>11%</b>	12%	10%
<b>LANGUAGES SPOKEN</b>						
Percentage of students indicating that they speak the following languages at home:‡						
Only English/Mostly English	<b>91%</b>	93%	90%	<b>75%</b>	74%	76%
Another language (or other languages) as often as English	<b>4%</b>	4%	5%	<b>13%</b>	15%	12%
Mostly another language (or other languages)/ Only another language (or other languages)	<b>1%</b>	1%	1%	<b>7%</b>	7%	7%
Percentage of students indicating the languages people speak to them at home:‡						
Only English/Mostly English	<b>88%</b>	91%	86%	<b>70%</b>	69%	71%
Another language (or other languages) as often as English	<b>5%</b>	4%	5%	<b>11%</b>	12%	11%
Mostly another language (or other languages)/ Only another language (or other languages)	<b>1%</b>	1%	2%	<b>11%</b>	11%	10%

\* 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 missing responses.

Grade 9 Assessment of Mathematics, 2016–2017, Applied Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 368)	Female* (# = 169)	Male* (# = 199)	All Students (# = 30 066)	Female* (# = 13 280)	Male* (# = 16 786)
<b>USE OF THE ASSESSMENT IN CLASS MARKS</b>						
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	<b>39%</b>	46%	34%	<b>43%</b>	47%	40%
No	<b>1%</b>	0%	1%	<b>1%</b>	1%	2%
Don't know	<b>55%</b>	50%	59%	<b>50%</b>	47%	52%
Percentage of students indicating they were told how much the assessment will count as part of their class mark:‡						
	All Students (# = 144)	Female* (# = 77)	Male* (# = 67)	All Students (# = 12 990)	Female* (# = 6 226)	Male* (# = 6 764)
Yes	<b>90%</b>	92%	88%	<b>88%</b>	89%	88%
No	<b>8%</b>	8%	9%	<b>11%</b>	11%	12%
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 (# = 144)	Female* (# = 77)	Male* (# = 67)	All Students (# = 12 990)	Female* (# = 6 226)	Male* (# = 6 764)
Yes	<b>74%</b>	81%	67%	<b>77%</b>	79%	76%
No	<b>6%</b>	4%	9%	<b>8%</b>	6%	10%
Undecided	<b>18%</b>	16%	21%	<b>14%</b>	15%	13%

\* Includes only students for whom gender data were available.


† Percentages may not add up to 100, due to rounding or to missing 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, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 567)

 Strongly Disagree/Disagree

 Neither agree nor disagree

 Agree/Strongly agree

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.	15	32	52	296
I am good at mathematics.	15	31	53	301
I am able to answer difficult mathematics questions.	18	39	43	241
Mathematics is one of my favourite subjects.	44	20	35	198
I understand most of the mathematics I am taught.	9	20	70	396
Mathematics is an easy subject.	36	41	22	123
I do my best in mathematics class.	10	17	72	409
The mathematics I learn now is useful for everyday life.	32	34	34	192
The mathematics I learn now helps me do work in other subjects.	16	26	56	320
I need to do well in mathematics to study what I want later.	12	25	61	346
I need to keep taking mathematics for the kind of job I want after I leave school.	15	27	56	319

 Not at all confident

 Somewhat confident





 Confident

 Very confident

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)		34	45	18	101
algebra (e.g., solving equations, simplifying expressions with polynomials)	8	28	44	19	106
linear relations (e.g., scatter plots, lines of best fit)	7	34	41	16	92
analytic geometry (e.g., slope, y-intercept, equations of lines)	10	29	39	20	111
measurement (e.g., perimeter, area, volume)	16	41	40		226
geometry (e.g., angles, parallel lines)	4	21	43	31	175

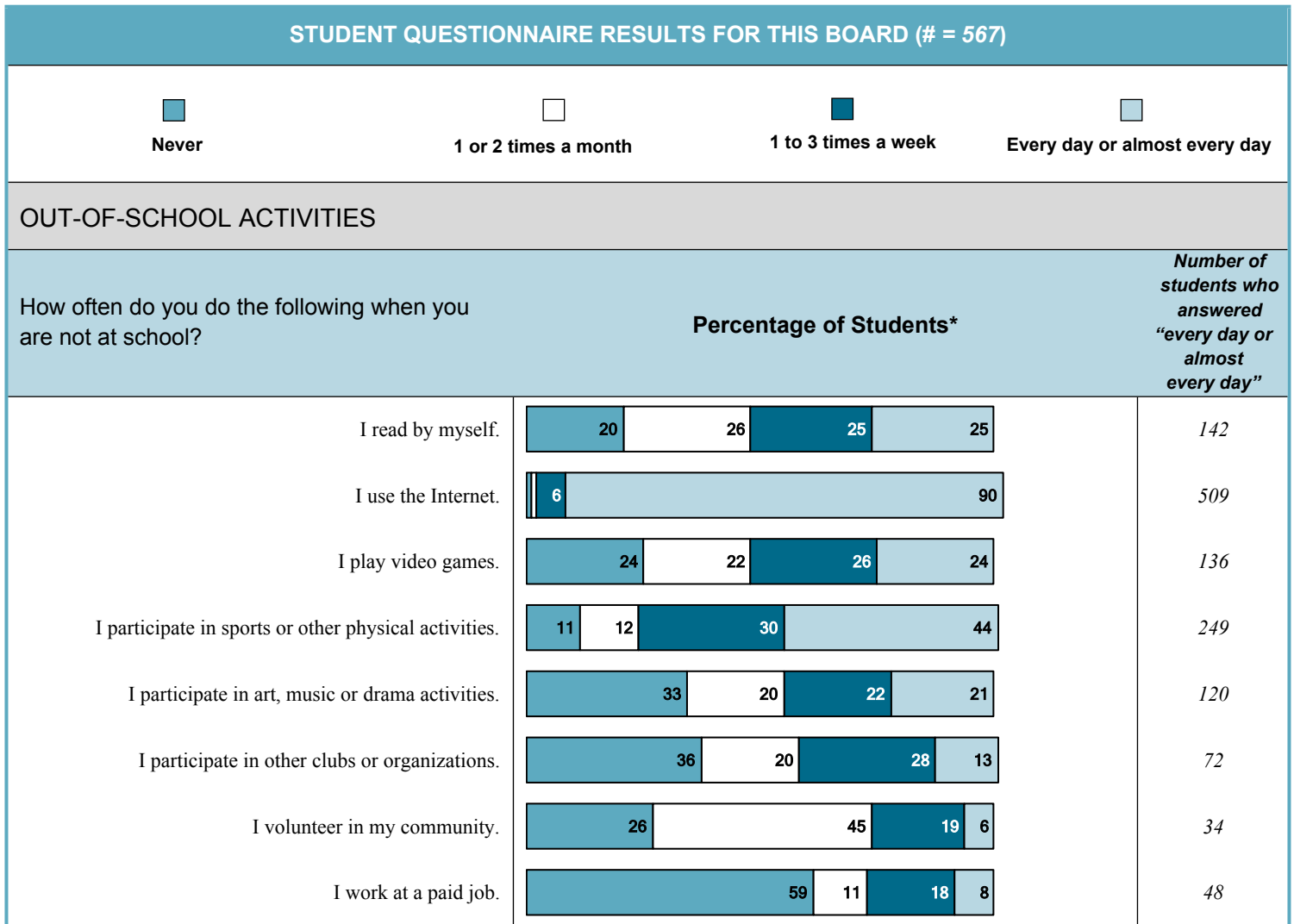
\* Percentages may not add up to 100, due to rounding or to missing responses. Where there is no number in a bar, the percentage of responses is smaller than four.

Grade 9 Assessment of Mathematics, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 567)					
 Never or almost never	 Sometimes	 Often	 Very Often		
<b>DOING MATHEMATICS</b>					
How often do you do the following when studying mathematics or working on a mathematics problem?			<i>Number of students who answered "very often"</i>		
<b>Percentage of Students*</b>					
I connect new mathematics concepts to what I already know about mathematics or other subjects.	7	50	32	9	52
I check my mathematics answers to see if they make sense.		29	44	24	136
I apply new mathematics concepts to real-life problems.	31	43	20	4	24
I take time to discuss my mathematics assignments with my classmates.	20	43	25	10	58
I look for more than one way to solve mathematics problems.	12	45	30	11	64
How often do you complete your mathematics homework?			<b>Percentage of Students*</b>		<i>Number of students</i>
I am not usually assigned any mathematics homework					9
Never or almost never		6			36
Sometimes		27			151
Often		39			221
Always		23			128

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











Grade 9 Assessment of Mathematics, 2016–2017, Academic Course



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

Grade 9 Assessment of Mathematics, 2016–2017, Academic Course









STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 567)

SCHOOLS ATTENDED		Percentage of Students*	Number of students
How many schools did you attend from kindergarten to Grade 8 (home-schooling is counted as one school)?			
0 schools			2
1 school		32	184
2 schools		34	195
3 schools		14	81
4 schools		7	41
5 or more schools		7	37
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">   <b>Only English/Mostly English</b> </div> <div style="text-align: center;">   <b>Another language (or other languages) as often as English</b> </div> <div style="text-align: center;">   <b>Mostly another language (or other languages)/Only another language (or other languages)</b> </div> </div>			
LANGUAGES SPOKEN		Percentage of Students*	Number of students who answered "only English" or "mostly English"
Languages student speaks at home		88 5 7	500
Languages in which people speak to student at home		85 5 10	483

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



Grade 9 Assessment of Mathematics, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = 567)		
<b>USE OF THE ASSESSMENT IN CLASS MARKS</b>		
Will your teacher count some or all parts of the Grade 9 Assessment of Mathematics as part of your class mark?	<b>Percentage of Students*</b>	<b>Number of students</b>
Yes	 75	424
No	 1	4
Don't know	 20	116
<i>Total number of students</i>		<b>424</b>
Were you told how much the assessment will count as part of your class mark (e.g., 5%)?†	<b>Percentage of Students*</b>	<b>Number of students</b>
Yes	 97	410
No	 3	14
<i>Total number of students</i>		<b>424</b>
Does counting the Grade 9 Assessment of Mathematics as part of your class mark motivate you to take the assessment more seriously?†	<b>Percentage of Students*</b>	<b>Number of students</b>
Yes	 78	331
No	 8	36
Undecided	 13	55

\* Percentages may not add up to 100, due to rounding or to missing 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, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 567)	Female* (# = 304)	Male* (# = 263)	All Students (# = 89 743)	Female* (# = 46 134)	Male* (# = 43 609)
<b>STUDENTS' ATTITUDES TOWARD MATHEMATICS</b>						
Percentage of students indicating they "agree" or "strongly agree" with the following statements:†						
I like mathematics.	<b>52%</b>	50%	54%	<b>58%</b>	53%	63%
I am good at mathematics.	<b>53%</b>	50%	56%	<b>56%</b>	50%	61%
I am able to answer difficult mathematics questions.	<b>43%</b>	37%	49%	<b>48%</b>	40%	57%
Mathematics is one of my favorite subjects.	<b>35%</b>	35%	35%	<b>41%</b>	36%	47%
I understand most of the mathematics I am taught.	<b>70%</b>	72%	67%	<b>75%</b>	72%	77%
Mathematics is an easy subject.	<b>22%</b>	18%	25%	<b>29%</b>	25%	34%
I do my best in mathematics class.	<b>72%</b>	78%	65%	<b>73%</b>	76%	69%
The mathematics I learn now is useful for everyday life.	<b>34%</b>	31%	37%	<b>33%</b>	29%	36%
The mathematics I learn now helps me do work in other subjects.	<b>56%</b>	54%	60%	<b>57%</b>	56%	59%
I need to do well in mathematics to study what I want later.	<b>61%</b>	61%	61%	<b>64%</b>	62%	67%
I need to keep taking mathematics for the kind of job I want after I leave school.	<b>56%</b>	57%	56%	<b>58%</b>	56%	61%
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)	<b>62%</b>	58%	67%	<b>68%</b>	61%	74%
algebra (e.g., solving equations, simplifying expressions with polynomials)	<b>62%</b>	63%	62%	<b>70%</b>	69%	72%
linear relations (e.g., scatter plots, lines of best fit)	<b>57%</b>	54%	61%	<b>60%</b>	55%	66%
analytic geometry (e.g., slope, y-intercept, equations of lines)	<b>58%</b>	56%	60%	<b>62%</b>	59%	66%
measurement (e.g., perimeter, area, volume)	<b>81%</b>	75%	87%	<b>78%</b>	74%	82%
geometry (e.g., angles, parallel lines)	<b>73%</b>	71%	76%	<b>72%</b>	68%	76%

\* 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, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 567)	Female* (# = 304)	Male* (# = 263)	All Students (# = 89 743)	Female* (# = 46 134)	Male* (# = 43 609)
<b>DOING MATHEMATICS</b>						
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.	<b>9%</b>	12%	6%	<b>11%</b>	11%	11%
I check my mathematics answers to see if they make sense.	<b>24%</b>	29%	18%	<b>30%</b>	33%	26%
I apply new mathematics concepts to real-life problems.	<b>4%</b>	2%	6%	<b>5%</b>	4%	6%
I take time to discuss my mathematics assignments with my classmates.	<b>10%</b>	12%	8%	<b>11%</b>	12%	10%
I look for more than one way to solve mathematics problems.	<b>11%</b>	10%	13%	<b>12%</b>	11%	14%
Percentage of students indicating they complete their mathematics homework at the following frequencies:‡						
I am not usually assigned any mathematics homework	<b>2%</b>	2%	1%	<b>1%</b>	1%	2%
Never or almost never	<b>6%</b>	3%	10%	<b>5%</b>	3%	7%
Sometimes	<b>27%</b>	19%	35%	<b>21%</b>	17%	26%
Often	<b>39%</b>	41%	37%	<b>36%</b>	36%	37%
Always	<b>23%</b>	30%	14%	<b>30%</b>	36%	23%

\* 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 missing responses.

## Grade 9 Assessment of Mathematics, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 567)	Female* (# = 304)	Male* (# = 263)	All Students (# = 89 743)	Female* (# = 46 134)	Male* (# = 43 609)
<b>OUT-OF-SCHOOL ACTIVITIES</b>						
Percentage of students indicating they do the following “every day or almost every day” when they are not at school:†						
I read by myself.	<b>25%</b>	35%	14%	<b>21%</b>	27%	14%
I use the Internet.	<b>90%</b>	91%	88%	<b>90%</b>	91%	89%
I play video games.	<b>24%</b>	7%	44%	<b>24%</b>	7%	42%
I participate in sports or other physical activities.	<b>44%</b>	38%	51%	<b>42%</b>	34%	49%
I participate in art, music or drama activities.	<b>21%</b>	27%	14%	<b>20%</b>	26%	14%
I participate in other clubs or organizations.	<b>13%</b>	11%	14%	<b>13%</b>	11%	14%
I volunteer in my community.	<b>6%</b>	7%	5%	<b>4%</b>	4%	4%
I work at a paid job.	<b>8%</b>	7%	10%	<b>4%</b>	4%	4%
<b>SCHOOLS ATTENDED</b>						
Percentage of students indicating the number of schools they attended from kindergarten to Grade 8 (home-schooling is counted as one school):‡						
0 schools	<b>&lt;1%</b>	<1%	<1%	<b>1%</b>	<1%	1%
1 school	<b>32%</b>	34%	31%	<b>26%</b>	26%	26%
2 schools	<b>34%</b>	35%	33%	<b>32%</b>	32%	32%
3 schools	<b>14%</b>	14%	14%	<b>19%</b>	19%	19%
4 schools	<b>7%</b>	7%	8%	<b>9%</b>	9%	9%
5 or more schools	<b>7%</b>	6%	7%	<b>7%</b>	7%	7%
<b>LANGUAGES SPOKEN</b>						
Percentage of students indicating that they speak the following languages at home:‡						
Only English/Mostly English	<b>88%</b>	90%	86%	<b>68%</b>	69%	68%
Another language (or other languages) as often as English	<b>5%</b>	5%	5%	<b>17%</b>	17%	16%
Mostly another language (or other languages)/ Only another language (or other languages)	<b>3%</b>	2%	3%	<b>9%</b>	8%	10%
Percentage of students indicating the languages people speak to them at home:‡						
Only English/Mostly English	<b>85%</b>	86%	84%	<b>61%</b>	61%	60%
Another language (or other languages) as often as English	<b>5%</b>	4%	6%	<b>15%</b>	15%	14%
Mostly another language (or other languages)/ Only another language (or other languages)	<b>4%</b>	4%	3%	<b>16%</b>	16%	17%

\* 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 missing responses.

Grade 9 Assessment of Mathematics, 2016–2017, Academic Course

STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male)	Board			Province		
	All Students (# = 567)	Female* (# = 304)	Male* (# = 263)	All Students (# = 89 743)	Female* (# = 46 134)	Male* (# = 43 609)
<b>USE OF THE ASSESSMENT IN CLASS MARKS</b>						
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	<b>75%</b>	78%	71%	<b>68%</b>	71%	65%
No	<b>1%</b>	1%	<1%	<b>1%</b>	1%	1%
Don't know	<b>20%</b>	18%	23%	<b>24%</b>	21%	27%
Percentage of students indicating they were told how much the assessment will count as part of their class mark:‡						
	All Students (#=424)	Female* (#=236)	Male* (#=188)	All Students (#=61 236)	Female* (#=32 782)	Male* (#=28 454)
Yes	<b>97%</b>	96%	97%	<b>94%</b>	94%	94%
No	<b>3%</b>	4%	3%	<b>5%</b>	5%	6%
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 (#=424)	Female* (#=236)	Male* (#=188)	All Students (#=61 236)	Female* (#=32 782)	Male* (#=28 454)
Yes	<b>78%</b>	82%	73%	<b>79%</b>	81%	77%
No	<b>8%</b>	5%	13%	<b>9%</b>	7%	12%
Undecided	<b>13%</b>	13%	13%	<b>11%</b>	12%	11%

\* Includes only students for whom gender data were available.

† Percentages may not add up to 100, due to rounding or to missing 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, 2016–2017

## EXPLANATION OF TERMS

<b>All Students</b>	Results are reported for all students in the course.
<b>Participating Students</b>	Results are reported only for those students who took part in the assessment (excludes the “no data” category).
<b>Provincial Standard</b>	The Ministry of Education, in <i>The Ontario Curriculum, Grades 9 and 10: Mathematics</i> , has set Level 3 as the provincial standard.
<b>Level 4 (80–100%)</b>	The student has demonstrated a very high to outstanding level of achievement. Achievement is <i>above</i> the provincial standard.
<b>Level 3 (70–79%)</b>	The student has demonstrated a high level of achievement. Achievement is <i>at</i> the provincial standard.
<b>Level 2 (60–69%)</b>	The student has demonstrated some of the required knowledge and skills. Achievement is <i>below, but approaching</i> , the provincial standard.
<b>Level 1 (50–59%)</b>	The student has demonstrated a passable level of achievement. Achievement is <i>below</i> the provincial standard.
<b>Below Level 1/ Below L1</b>	The student has not demonstrated sufficient achievement of curriculum expectations (below 50%).
<b>No Data</b>	Students who did not have a result due to absence or other reasons.
<b>English Language Learners</b>	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 (2007)</i> .
<b>Students Receiving One or More Special Provisions</b>	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> .
<b>Students with Special Education Needs (excluding gifted)</b>	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.
<b>Students Receiving One or More Accommodations</b>	Students identified by the school as receiving accommodations. Detailed information about special accommodations is available in EQAO’s <i>Guide for Accommodations and Special Provisions</i> .
<b>N/R</b>	“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.
<b>N/D</b>	“No data available” is used to indicate that there were no students in the course for the years specified.
<b>W</b>	Results are being withheld by EQAO. For further information, please contact personnel at the board.
<b>EC</b>	Due to exceptional circumstances in 2015, provincial data are unavailable to report provincial results.
<b>NP</b>	Non-participating indicates that due to exceptional circumstances, some or all of the school’s or board’s students did not participate.