



# School Report



## Grade 9 Assessment of Mathematics, 2016–2017

**School: Dr John M Denison SS (904970)**

**Board: York Region DSB (66095)**

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.

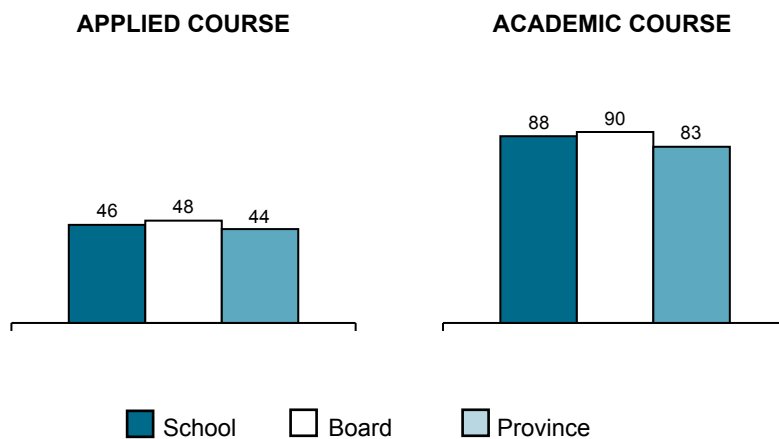
Sincerely,

Norah Marsh  
Chief Executive Officer  
Education Quality and Accountability Office

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



Grade 9 Assessment of Mathematics, 2016–2017

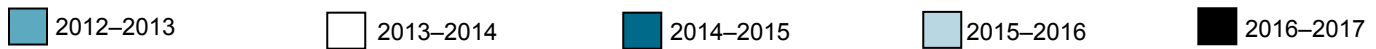
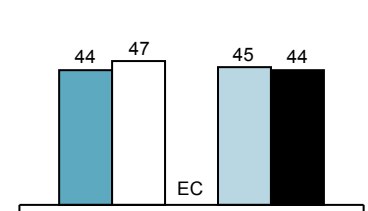
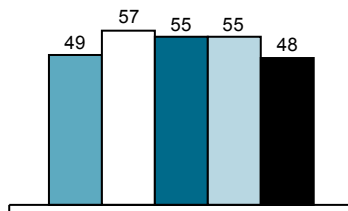
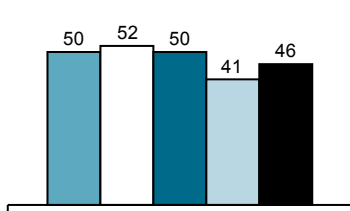
PERCENTAGE OF ALL STUDENTS AT OR ABOVE THE PROVINCIAL STANDARD (LEVELS 3 AND 4) OVER TIME

APPLIED MATHEMATICS

School

Board

Province



Total Number of Students

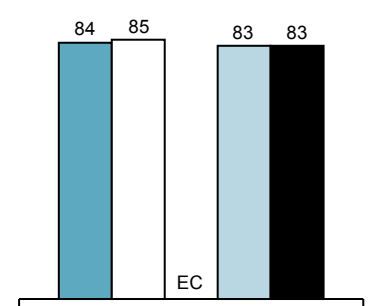
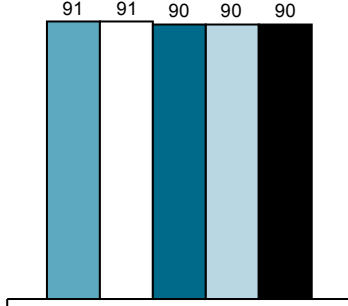
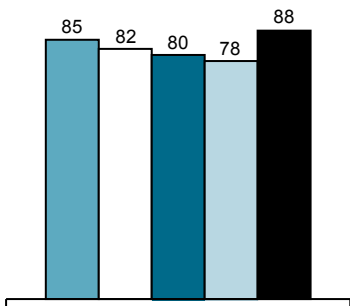
	<u>2012–2013</u>	<u>2013–2014</u>	<u>2014–2015</u>	<u>2015–2016</u>	<u>2016–2017</u>
School	68	71	66	70	54
Board	1 770	1 701	1 624	1 637	1 582
Province	39 881	38 181	EC	36 005	34 797

ACADEMIC MATHEMATICS

School

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>
School	150	138	148	125	134
Board	6 910	7 232	7 367	7 358	7 531
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 school's applied mathematics course results.

	School		Board		Province	
<b>Enrolment</b>						
Number of students in applied mathematics course	54		1 582		34 797	
Number of classes with students in applied mathematics course	3		128		2 422	
Number of schools with applied mathematics classes	Not applicable		33		701	
	Number	Percent	Number	Percent	Number	Percent
<b>Participation in the Assessment</b>						
Students who participated in the assessment	51	94%	1 546	98%	33 405	96%
Participating students who received one or more accommodations*	32	63%	779	50%	11 932	36%
Participating students who received one or more special provisions*	1	2%	145	9%	2 738	8%
Students who did not complete any part of the assessment (no data)*	3	6%	36	2%	1 392	4%
<b>Gender<sup>†</sup> Based on number of students enrolled</b>						
Female	22	41%	673	43%	15 212	44%
Male	32	59%	909	57%	19 585	56%
Gender not specified	0	0%	0	0%	0	0%
<b>Student Status<sup>†</sup> Based on number of students enrolled</b>						
English language learners*	2	4%	230	15%	3 802	11%
Students with special education needs (excluding gifted)*	32	59%	842	53%	14 384	41%
<b>Semester/Full Year Based on number of students enrolled</b>						
First-semester course	12	22%	812	51%	15 803	45%
Second-semester course	42	78%	769	49%	16 811	48%
Full-year course	0	0%	1	<1%	2 183	6%
<b>Language and School Background<sup>††</sup> Based on Student Questionnaire data</b>						
	Number of Respondents:		50	1 396	30 066	
Speak only or mostly a language other than English at home	1	2%	136	10%	1 997	7%
Speak another language as often as English at home	7	14%	265	19%	3 913	13%
Attended three or more elementary schools from kindergarten to Grade 8	22	44%	500	36%	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)**

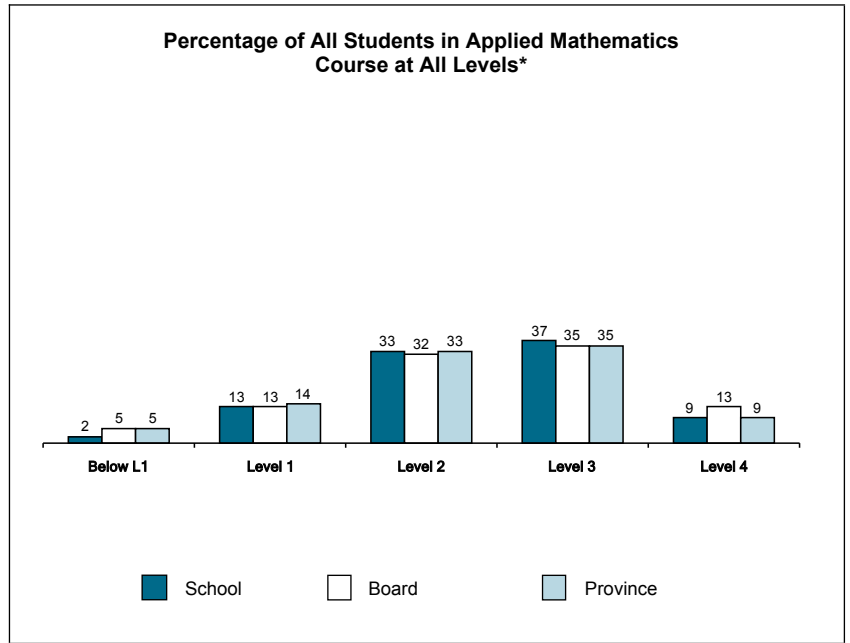
	School		Board		Province	
	Number	Percent	Number	Percent	Number	Percent
<b>Year Student Entered Current School<sup>†</sup></b>						
Year of the assessment	49	91%	1 385	88%	29 843	86%
Year prior to the assessment	4	7%	163	10%	2 886	8%
2 years prior to the assessment	1	2%	15	1%	622	2%
3 or more years prior to the assessment	0	0%	16	1%	1 265	4%
Data not available	0	0%	3	<1%	181	1%
<b>Year Student Entered Current Board<sup>†</sup></b>						
Year of the assessment	6	11%	222	14%	5 494	16%
Year prior to the assessment	5	9%	99	6%	2 330	7%
2 years prior to the assessment	3	6%	73	5%	1 507	4%
3 or more years prior to the assessment	40	74%	1 185	75%	23 793	68%
Data not available	0	0%	3	<1%	1 673	5%

<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

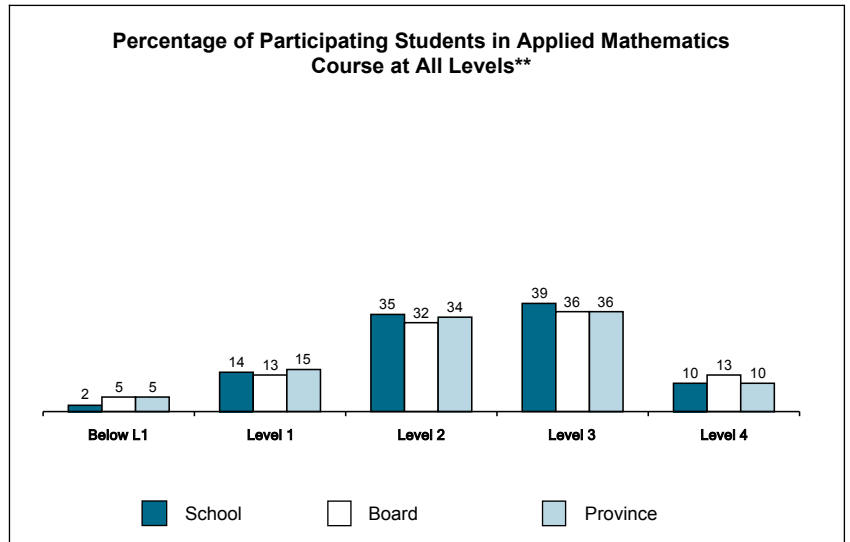
Results for All Students, Applied Course

All Students*				
Number of Students	School 54		Board 1 582	Province 34 797
	#	%	%	%
Level 4	5	9%	13%	9%
Level 3	20	37%	35%	35%
Level 2	18	33%	32%	33%
Level 1	7	13%	13%	14%
Below Level 1	1	2%	5%	5%
Participating Students	51	94%	98%	96%
No Data	3	6%	2%	4%
At or Above Provincial Standard (Levels 3 and 4)†		46%	48%	44%



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

Participating Students**				
Number of Students	School 51		Board 1 546	Province 33 405
	#	%	%	%
Level 4	5	10%	13%	10%
Level 3	20	39%	36%	36%
Level 2	18	35%	32%	34%
Level 1	7	14%	13%	15%
Below Level 1	1	2%	5%	5%
At or Above Provincial Standard (Levels 3 and 4)†		49%	49%	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.

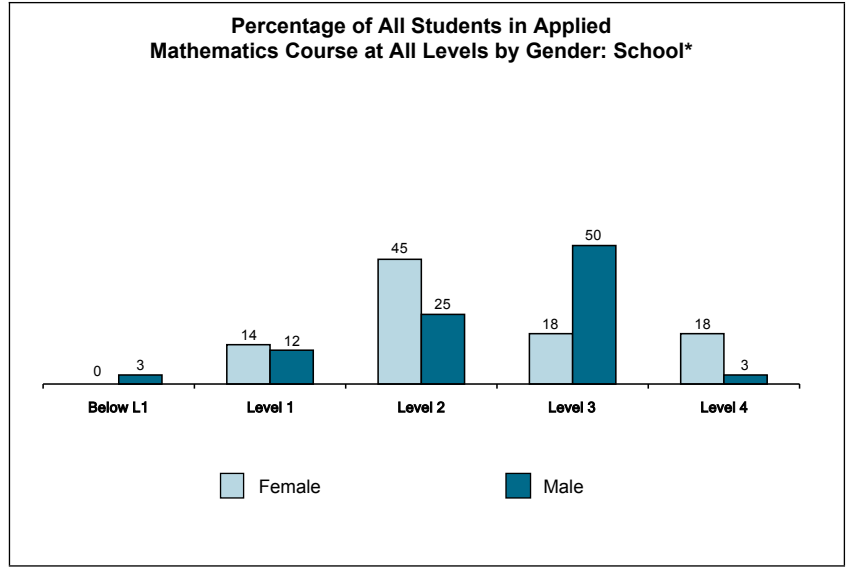
\*\* Because percentages in tables and graphs are rounded, percentages may not add up to 100.

† 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.

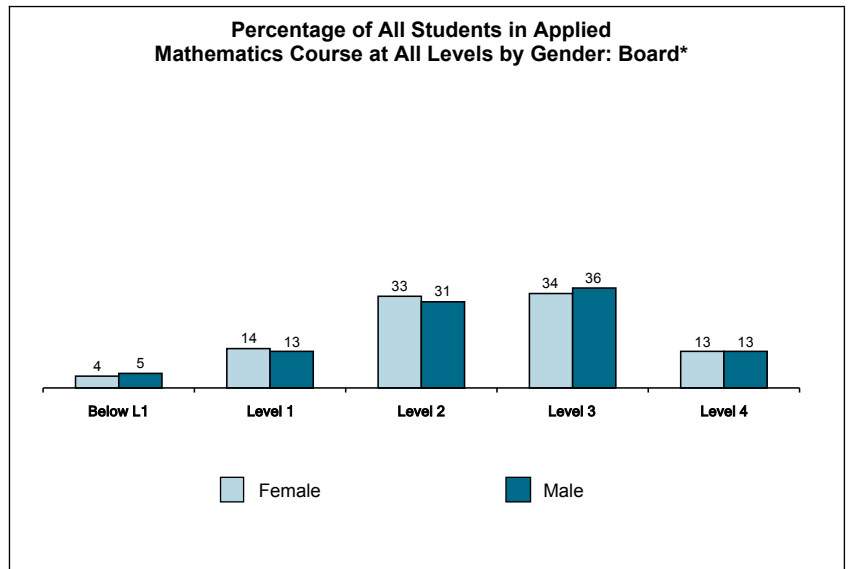
Grade 9 Assessment of Mathematics, 2016–2017

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

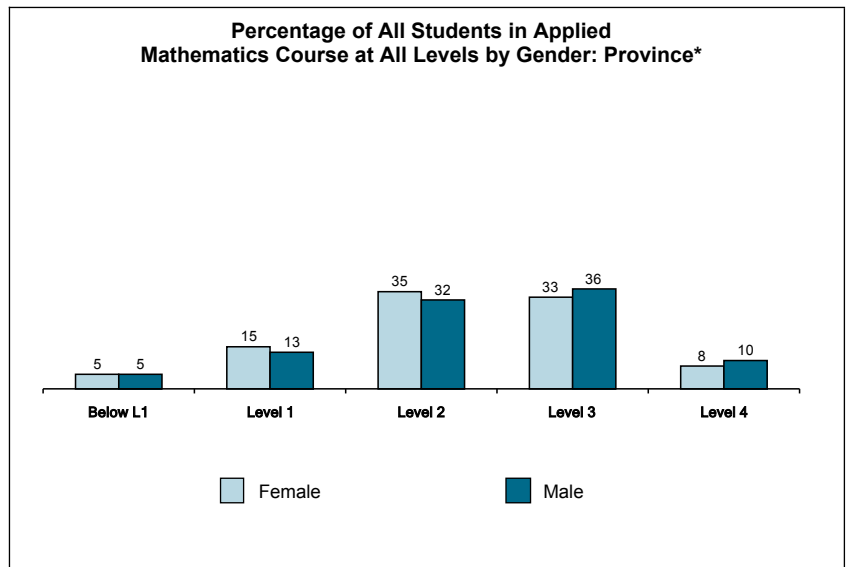
All Students: School by Gender*				
Number of Students	Female 22		Male 32	
	#	%	#	%
Level 4	4	18%	1	3%
Level 3	4	18%	16	50%
Level 2	10	45%	8	25%
Level 1	3	14%	4	12%
Below Level 1	0	0%	1	3%
Participating Students	21	95%	30	94%
No Data	1	5%	2	6%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>	36%		53%	



All Students: Board by Gender*				
Number of Students	Female 673		Male 909	
	#	%	#	%
Level 4	85	13%	115	13%
Level 3	232	34%	328	36%
Level 2	221	33%	281	31%
Level 1	91	14%	116	13%
Below Level 1	28	4%	49	5%
Participating Students	657	98%	889	98%
No Data	16	2%	20	2%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>	47%		49%	



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 school's academic mathematics course results.

	School		Board		Province	
<b>Enrolment</b>						
Number of students in academic mathematics course	134		7 531		96 449	
Number of classes with students in academic mathematics course	5		318		4 197	
Number of schools with academic mathematics classes	Not applicable		33		682	
	Number	Percent	Number	Percent	Number	Percent
<b>Participation in the Assessment</b>						
Students who participated in the assessment	134	100%	7 492	99%	95 447	99%
Participating students who received one or more accommodations*	19	14%	584	8%	6 408	7%
Participating students who received one or more special provisions*	2	1%	454	6%	4 478	5%
Students who did not complete any part of the assessment (no data)*	0	0%	39	1%	1 002	1%
<b>Gender<sup>†</sup> Based on number of students enrolled</b>						
Female	68	51%	3 736	50%	49 388	51%
Male	66	49%	3 795	50%	47 061	49%
Gender not specified	0	0%	0	0%	0	0%
<b>Student Status<sup>†</sup> Based on number of students enrolled</b>						
English language learners*	2	1%	818	11%	6 642	7%
Students with special education needs (excluding gifted)*	17	13%	583	8%	7 561	8%
<b>Semester/Full Year Based on number of students enrolled</b>						
First-semester course	85	63%	3 791	50%	43 562	45%
Second-semester course	49	37%	3 739	50%	43 082	45%
Full-year course	0	0%	1	<1%	9 805	10%
<b>Language and School Background<sup>††</sup></b>						
<i>Based on Student Questionnaire data</i>						
	Number of Respondents:		133		7 092	
					89 743	
Speak only or mostly a language other than English at home	6	5%	977	14%	7 826	9%
Speak another language as often as English at home	22	17%	1 676	24%	14 871	17%
Attended three or more elementary schools from kindergarten to Grade 8	38	29%	2 296	32%	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)

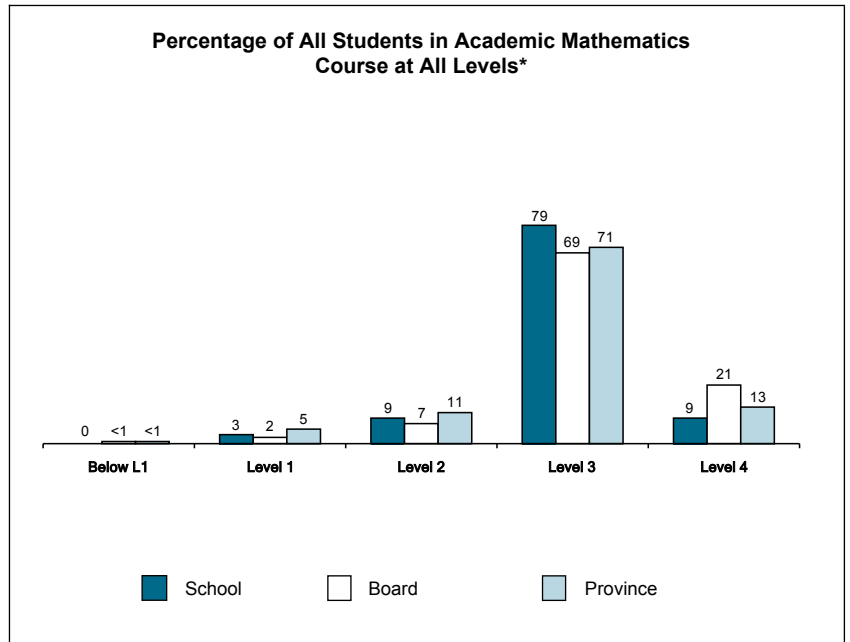
	School		Board		Province	
	Number	Percent	Number	Percent	Number	Percent
<b>Year Student Entered Current School<sup>†</sup></b>						
Year of the assessment	130	97%	7 341	97%	92 083	95%
Year prior to the assessment	4	3%	184	2%	1 410	1%
2 years prior to the assessment	0	0%	3	<1%	625	1%
3 or more years prior to the assessment	0	0%	2	<1%	2 150	2%
Data not available	0	0%	1	<1%	181	<1%
<b>Year Student Entered Current Board<sup>†</sup></b>						
Year of the assessment	10	7%	1 133	15%	15 036	16%
Year prior to the assessment	5	4%	279	4%	3 693	4%
2 years prior to the assessment	5	4%	326	4%	3 616	4%
3 or more years prior to the assessment	114	85%	5 791	77%	69 457	72%
Data not available	0	0%	2	<1%	4 647	5%

<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

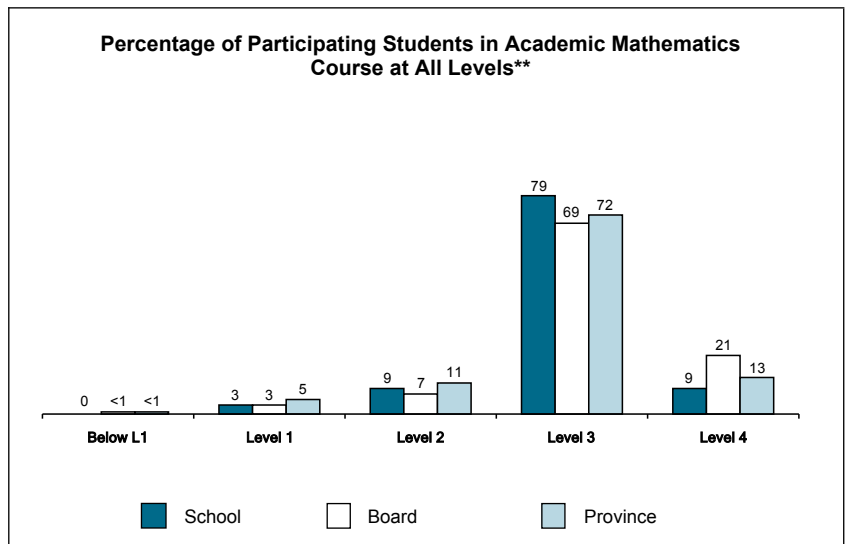
Results for All Students, Academic Course

All Students*				
Number of Students	School 134		Board 7 531	Province 96 449
	#	%	%	%
Level 4	12	9%	21%	13%
Level 3	106	79%	69%	71%
Level 2	12	9%	7%	11%
Level 1	4	3%	2%	5%
Below Level 1	0	0%	<1%	<1%
Participating Students	134	100%	99%	99%
No Data	0	0%	1%	1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>		<b>88%</b>	<b>90%</b>	<b>83%</b>



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

Participating Students**				
Number of Students	School 134		Board 7 492	Province 95 447
	#	%	%	%
Level 4	12	9%	21%	13%
Level 3	106	79%	69%	72%
Level 2	12	9%	7%	11%
Level 1	4	3%	3%	5%
Below Level 1	0	0%	<1%	<1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>		<b>88%</b>	<b>90%</b>	<b>84%</b>

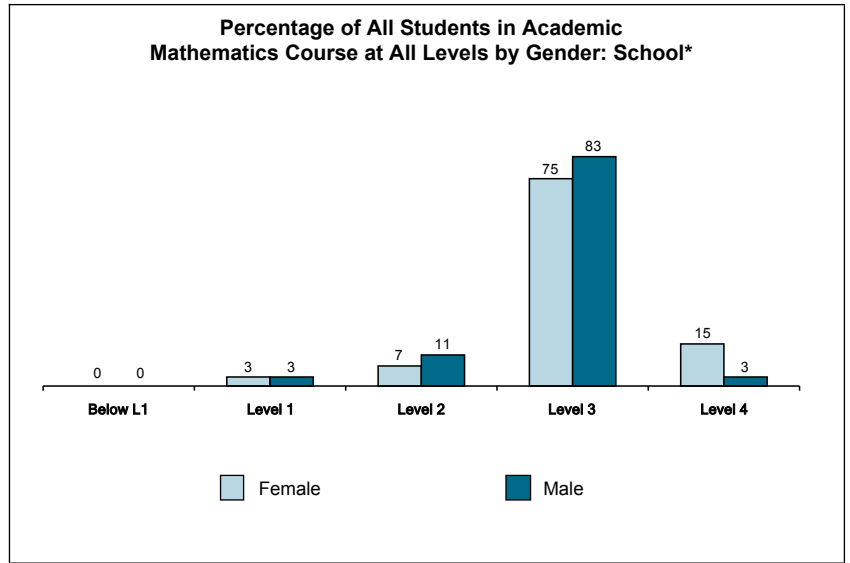


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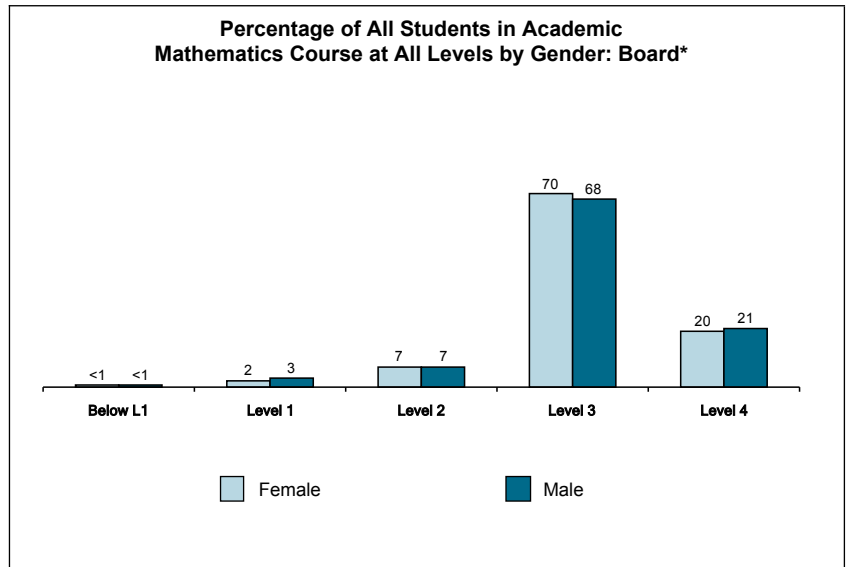
Grade 9 Assessment of Mathematics, 2016–2017

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

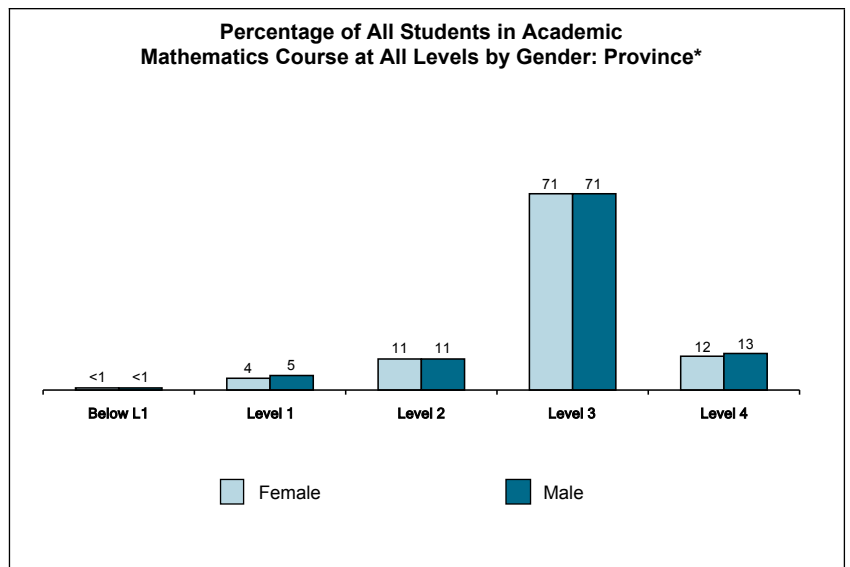
All Students: School by Gender*				
Number of Students	Female 68		Male 66	
	#	%	#	%
Level 4	10	15%	2	3%
Level 3	51	75%	55	83%
Level 2	5	7%	7	11%
Level 1	2	3%	2	3%
Below Level 1	0	0%	0	0%
Participating Students	68	100%	66	100%
No Data	0	0%	0	0%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>		90%	86%	



All Students: Board by Gender*				
Number of Students	Female 3 736		Male 3 795	
	#	%	#	%
Level 4	746	20%	810	21%
Level 3	2 615	70%	2 588	68%
Level 2	258	7%	271	7%
Level 1	93	2%	95	3%
Below Level 1	6	<1%	10	<1%
Participating Students	3 718	100%	3 774	99%
No Data	18	<1%	21	1%
At or Above Provincial Standard (Levels 3 and 4) <sup>†</sup>		90%	90%	



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 school'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	68	71	66	70	54
Number of classes with students in applied mathematics course	4	4	3	5	3
<b>Participation in the Assessment</b>					
Students who participated in the assessment	100%	100%	100%	100%	94%
Participating students who received one or more accommodations*	22%	48%	48%	71%	63%
Participating students who received one or more special provisions*	0%	0%	0%	4%	2%
Students who did not complete any part of the assessment (no data)*	0%	0%	0%	0%	6%
<b>Gender<sup>†</sup> Based on number of students enrolled</b>					
Female	54%	30%	38%	39%	41%
Male	46%	70%	62%	61%	59%
Gender not specified	0%	0%	0%	0%	0%
<b>Student Status<sup>†</sup> Based on number of students enrolled</b>					
English language learners*	1%	3%	3%	4%	4%
Students with special education needs (excluding gifted)*	49%	48%	45%	66%	59%
<b>Semester/Full Year Based on number of students enrolled</b>					
First-semester course	38%	39%	67%	46%	22%
Second-semester course	62%	61%	33%	54%	78%
Full-year course	0%	0%	0%	0%	0%
<b>Language and School Background<sup>††</sup> Based on Student Questionnaire data</b>					
Number of Respondents:	68	69	66	70	50
Speak only or mostly a language other than English at home	6%	6%	2%	7%	2%
Speak another language as often as English at home	4%	7%	5%	17%	14%
Attended three or more elementary schools from kindergarten to Grade 8	40%	32%	39%	40%	44%

\* 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)**

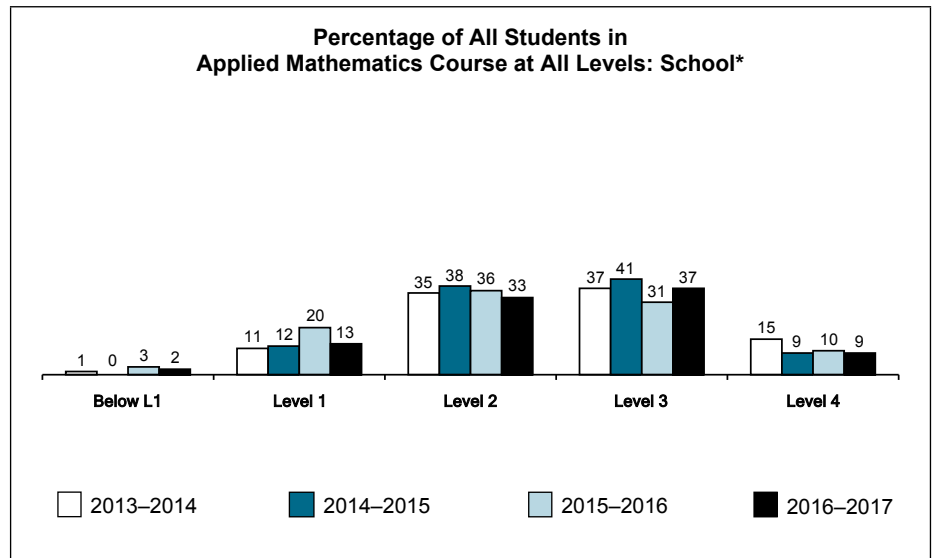
	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
<b>Year Student Entered Current School<sup>†</sup></b>					
Year of the assessment				90%	91%
Year prior to the assessment				9%	7%
2 years prior to the assessment			These items were added in 2015–2016.	1%	2%
3 or more years prior to the assessment				0%	0%
Data not available				0%	0%
<b>Year Student Entered Current Board<sup>†</sup></b>					
Year of the assessment				19%	11%
Year prior to the assessment				7%	9%
2 years prior to the assessment			These items were added in 2015–2016.	3%	6%
3 or more years prior to the assessment				71%	74%
Data not available				0%	0%

<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.

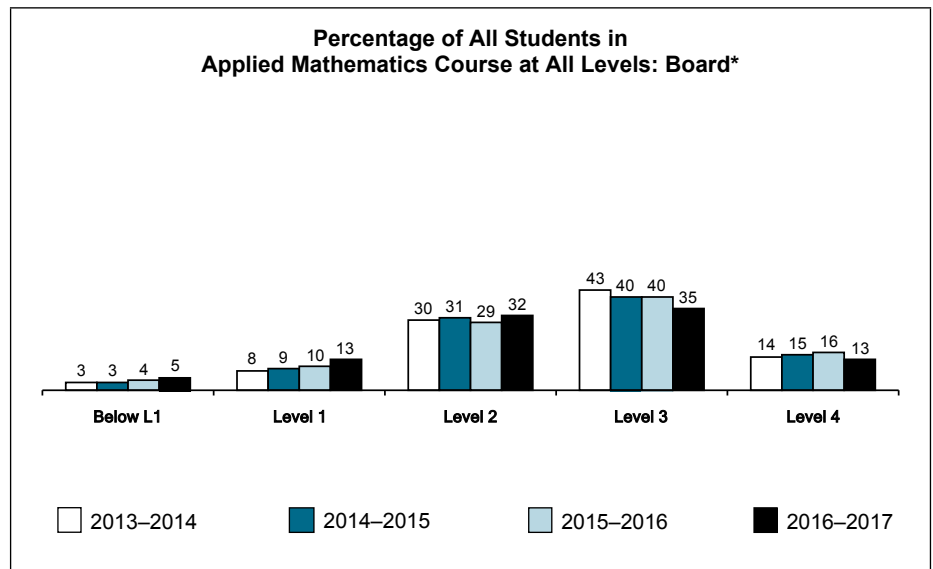
Grade 9 Assessment of Mathematics, 2016–2017

Results for All Students over Time: Applied Course

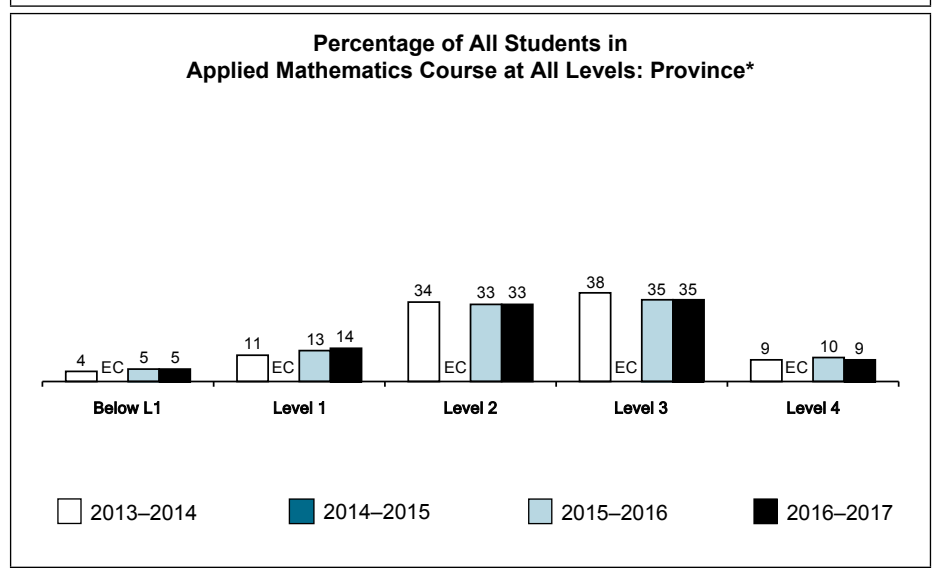
School*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	71	66	70	54
Level 4	15%	9%	10%	9%
Level 3	37%	41%	31%	37%
Level 2	35%	38%	36%	33%
Level 1	11%	12%	20%	13%
Below Level 1	1%	0%	3%	2%
<i>Participating Students</i>	100%	100%	100%	94%
No Data	0%	0%	0%	6%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>52%</b>	<b>50%</b>	<b>41%</b>	<b>46%</b>



Board*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	1 701	1 624	1 637	1 582
Level 4	14%	15%	16%	13%
Level 3	43%	40%	40%	35%
Level 2	30%	31%	29%	32%
Level 1	8%	9%	10%	13%
Below Level 1	3%	3%	4%	5%
<i>Participating Students</i>	98%	98%	98%	98%
No Data	2%	2%	2%	2%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>57%</b>	<b>55%</b>	<b>55%</b>	<b>48%</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 school'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	150	138	148	125	134
Number of classes with students in academic mathematics course	6	5	6	6	5
<b>Participation in the Assessment</b>					
Students who participated in the assessment	100%	99%	100%	100%	100%
Participating students who received one or more accommodations*	5%	14%	11%	10%	14%
Participating students who received one or more special provisions*	0%	0%	0%	2%	1%
Students who did not complete any part of the assessment (no data)*	0%	1%	0%	0%	0%
<b>Gender† Based on number of students enrolled</b>					
Female	47%	50%	49%	57%	51%
Male	53%	50%	51%	43%	49%
Gender not specified	0%	0%	0%	0%	0%
<b>Student Status† Based on number of students enrolled</b>					
English language learners*	7%	1%	1%	2%	1%
Students with special education needs (excluding gifted)*	8%	14%	9%	7%	13%
<b>Semester/Full Year Based on number of students enrolled</b>					
First-semester course	48%	59%	49%	37%	63%
Second-semester course	52%	41%	51%	63%	37%
Full-year course	0%	0%	0%	0%	0%
<b>Language and School Background†† Based on Student Questionnaire data</b>					
Number of Respondents:	150	136	148	125	133
Speak only or mostly a language other than English at home	14%	6%	10%	12%	5%
Speak another language as often as English at home	15%	12%	10%	21%	17%
Attended three or more elementary schools from kindergarten to Grade 8	33%	31%	42%	37%	29%

\* 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†</b>					
Year of the assessment				98%	97%
Year prior to the assessment				2%	3%
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†</b>					
Year of the assessment				10%	7%
Year prior to the assessment				3%	4%
2 years prior to the assessment			These items were added in 2015–2016.	2%	4%
3 or more years prior to the assessment				86%	85%
Data not available				0%	0%

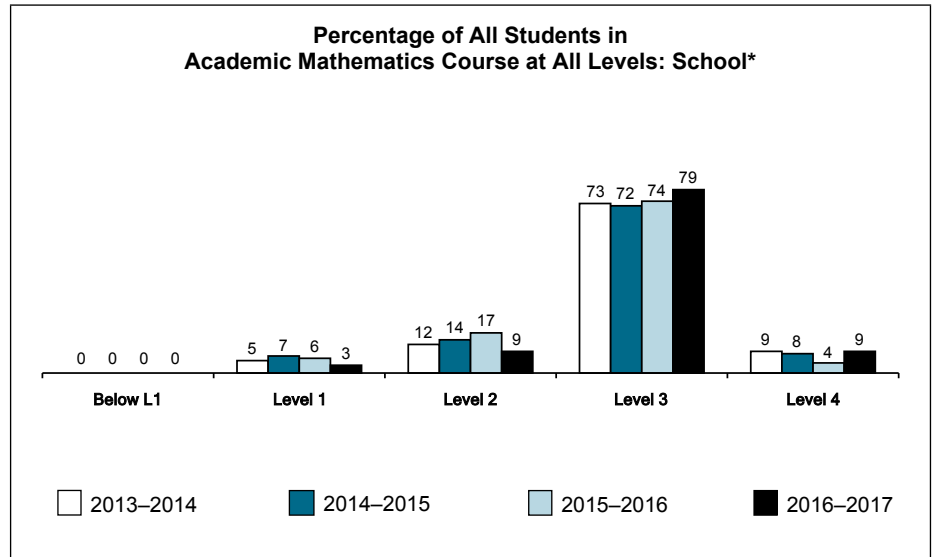
† Contextual data are provided by schools and/or boards through the Student Data Collection process. Some data may be missing because they were not provided by schools or boards.



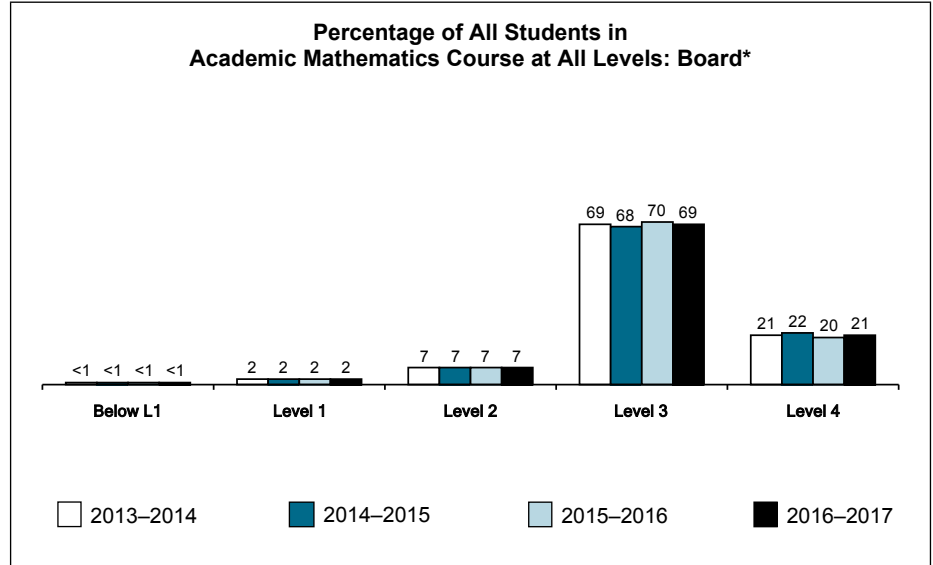
Grade 9 Assessment of Mathematics, 2016–2017

Results for All Students over Time: Academic Course

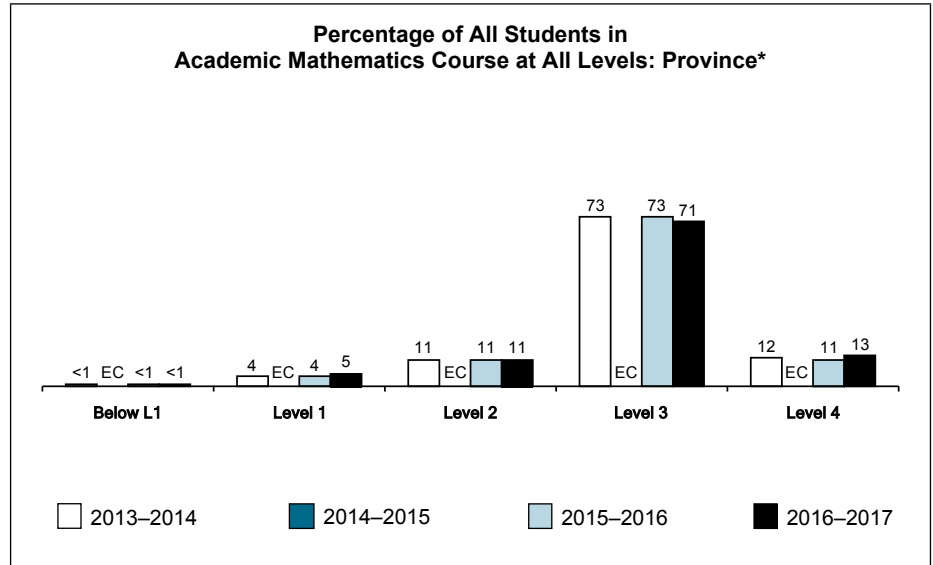
School*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	138	148	125	134
Level 4	9%	8%	4%	9%
Level 3	73%	72%	74%	79%
Level 2	12%	14%	17%	9%
Level 1	5%	7%	6%	3%
Below Level 1	0%	0%	0%	0%
<i>Participating Students</i>	99%	100%	100%	100%
No Data	1%	0%	0%	0%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>82%</b>	<b>80%</b>	<b>78%</b>	<b>88%</b>



Board*				
Year	'13-'14	'14-'15	'15-'16	'16-'17
<i>Number of Students</i>	7 232	7 367	7 358	7 531
Level 4	21%	22%	20%	21%
Level 3	69%	68%	70%	69%
Level 2	7%	7%	7%	7%
Level 1	2%	2%	2%	2%
Below Level 1	<1%	<1%	<1%	<1%
<i>Participating Students</i>	100%	100%	100%	99%
No Data	<1%	<1%	<1%	1%
<b>At or Above Provincial Standard (Levels 3 and 4)†</b>	<b>91%</b>	<b>90%</b>	<b>90%</b>	<b>90%</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>

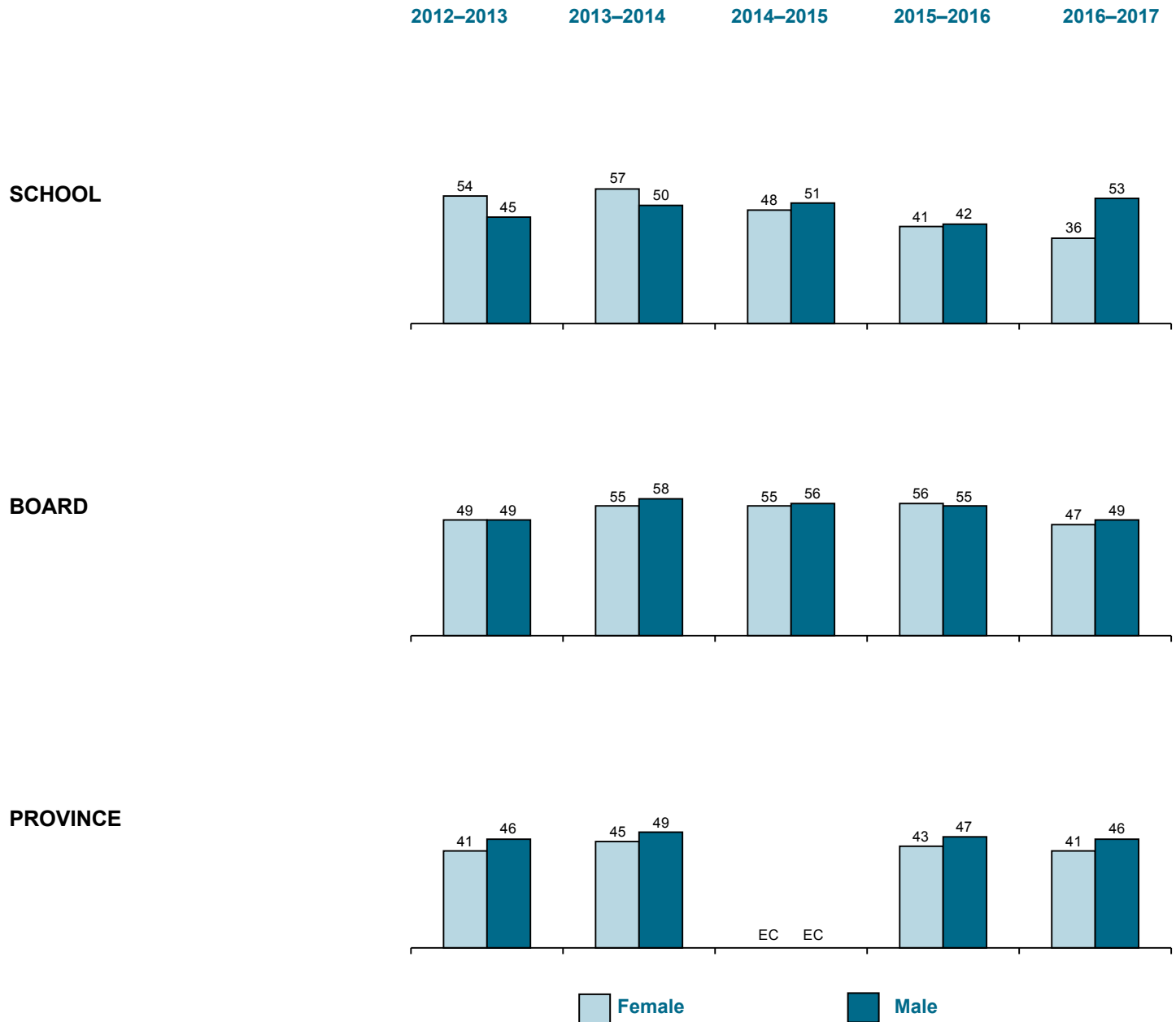


\* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.

† 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.

**RESULTS FOR ALL STUDENTS OVER TIME BY GENDER†**

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



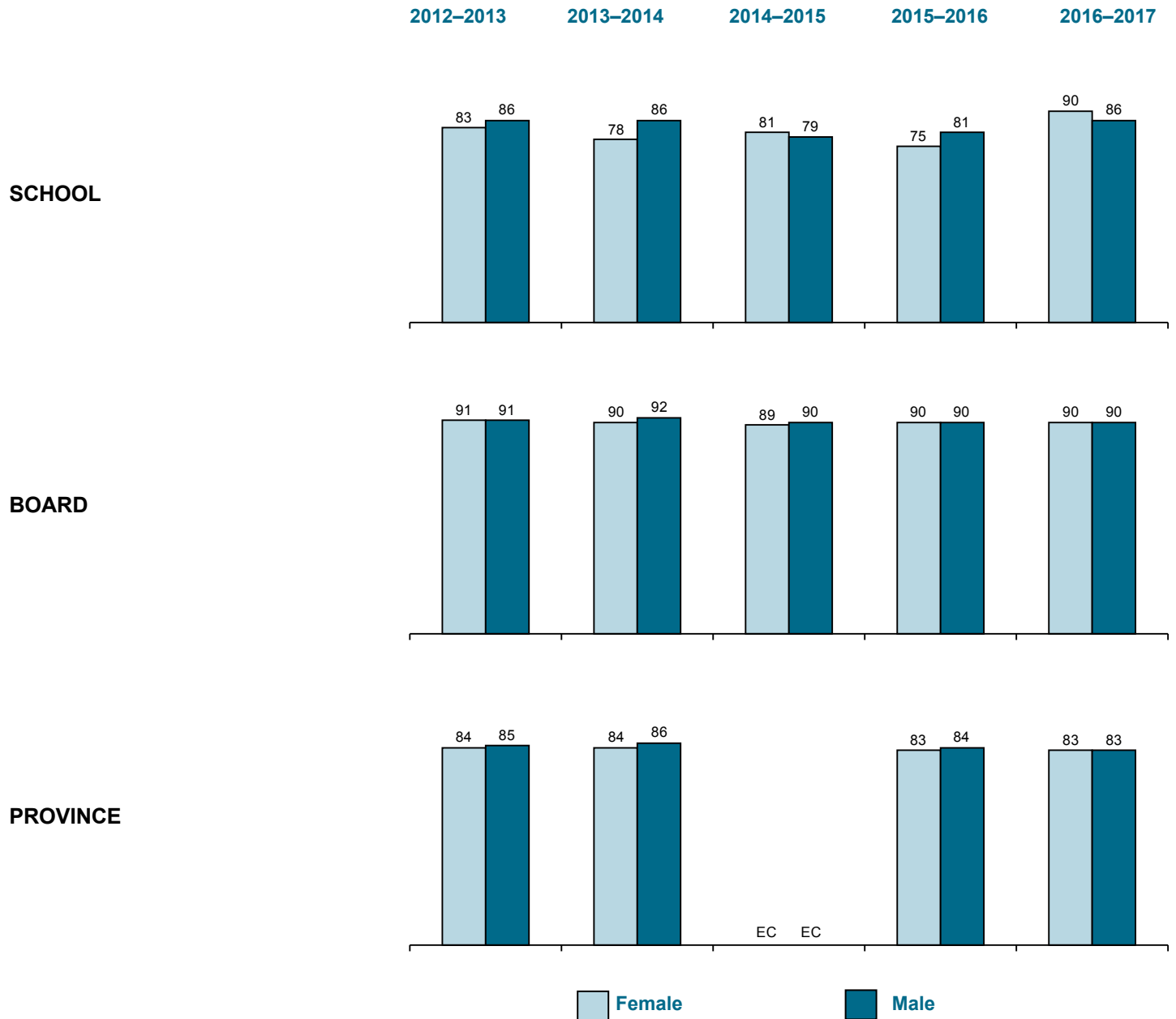
**Total Number of Students in Applied Mathematics Course†**

	2012–2013		2013–2014		2014–2015		2015–2016		2016–2017	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
School	37	31	21	50	25	41	27	43	22	32
Board	745	1 025	699	1 002	706	918	708	929	673	909
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.

**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
School	71	79	69	69	73	75	71	54	68	66
Board	3 402	3 508	3 626	3 606	3 654	3 713	3 651	3 707	3 736	3 795
Province	49 986	47 171	49 157	46 757	EC	EC	49 817	47 530	49 388	47 061

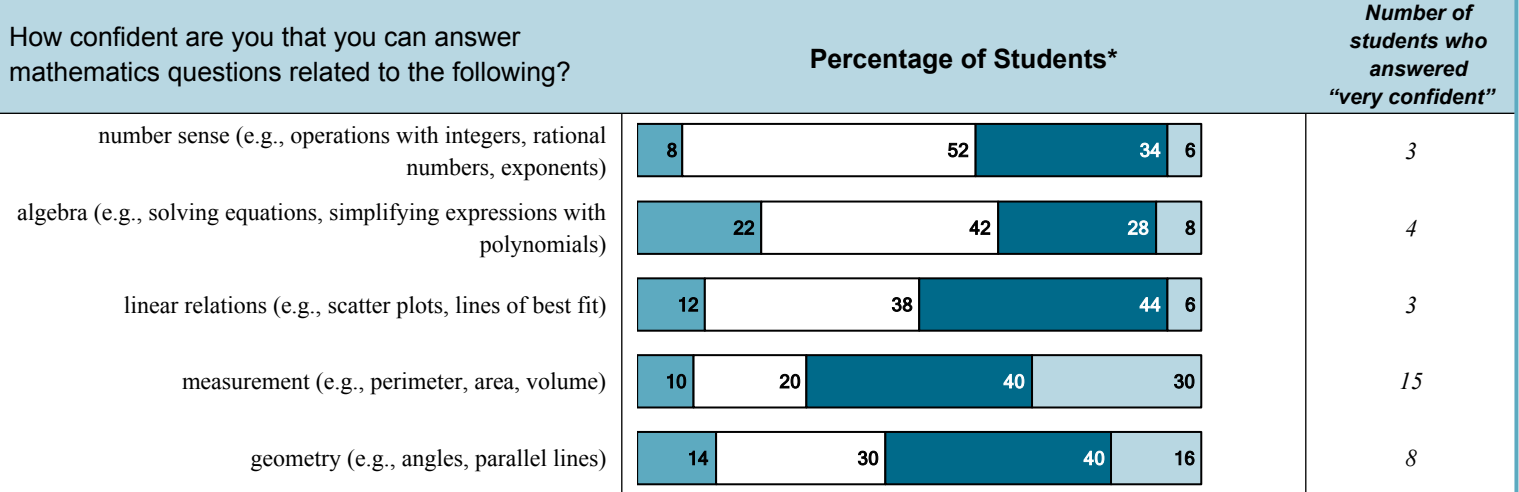
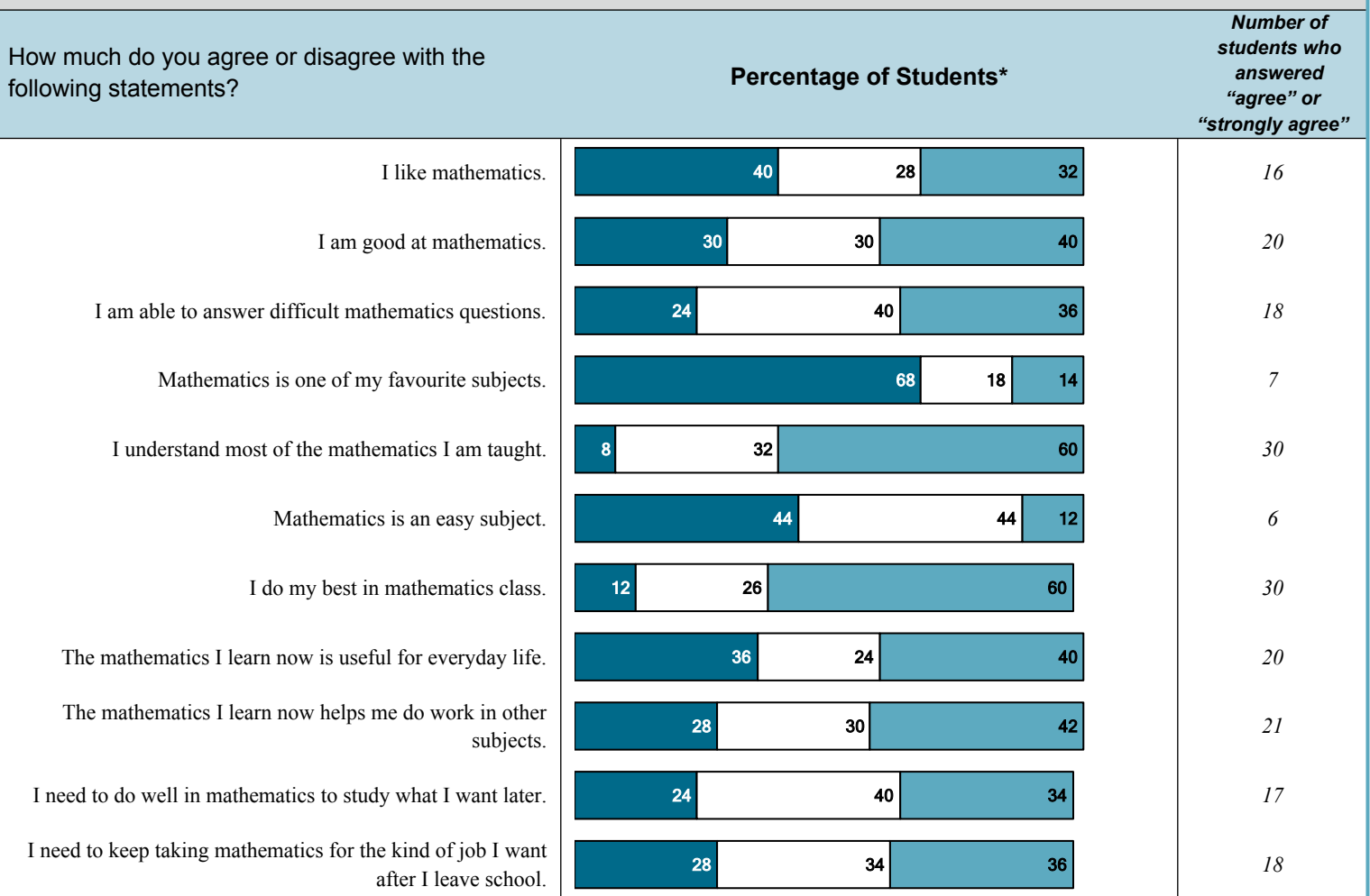
† Includes only students for whom gender data were available.

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

STUDENT QUESTIONNAIRE RESULTS FOR THIS SCHOOL (# = 50)



STUDENTS' ATTITUDES TOWARD MATHEMATICS



\* 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 SCHOOL (# = 50)					
	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?	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.	14	62	20	4	2
I check my mathematics answers to see if they make sense.	6	40	40	12	6
I apply new mathematics concepts to real-life problems.	34	46	16	4	2
I take time to discuss my mathematics assignments with my classmates.	44	44	8	4	2
I look for more than one way to solve mathematics problems.	22	36	30	10	5
How often do you complete your mathematics homework?	Percentage of Students*			Number of students	
I am not usually assigned any mathematics homework	20			10	
Never or almost never	12			6	
Sometimes	34			17	
Often	16			8	
Always	16			8	

\* 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 SCHOOL (# = 50)



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"
I read by myself.	30	40	14	16	8
I use the Internet.	12			86	43
I play video games.	24	18	24	32	16
I participate in sports or other physical activities.	12	18	26	44	22
I participate in art, music or drama activities.	46	20	18	16	8
I participate in other clubs or organizations.	48	18	16	18	9
I volunteer in my community.	36	42	10	12	6
I work at a paid job.	68	10	20		1

\* 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

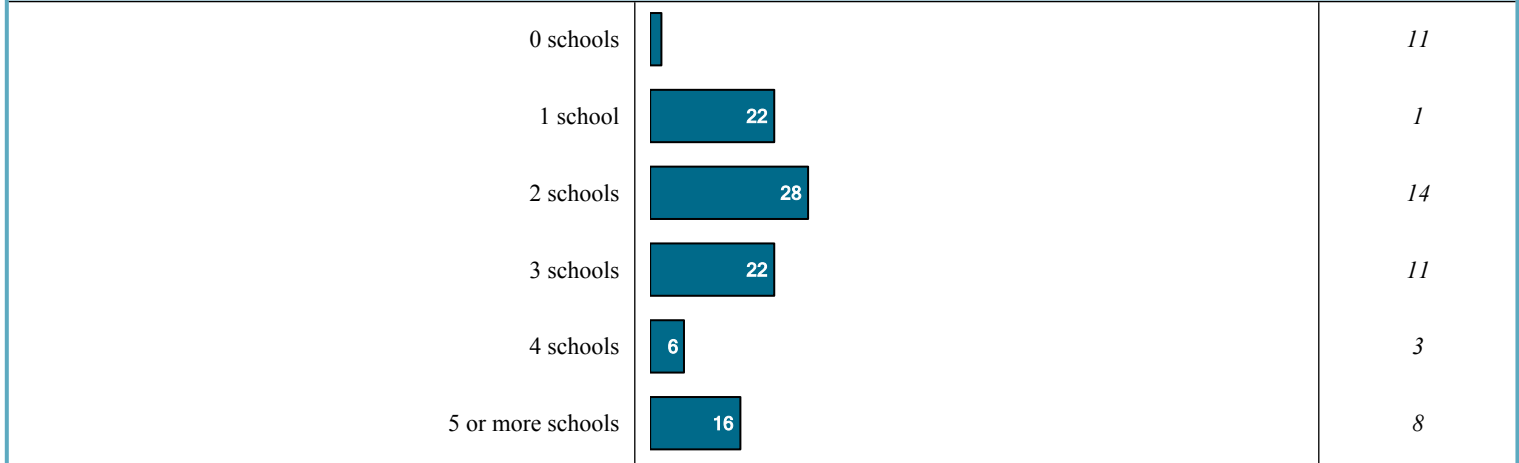
STUDENT QUESTIONNAIRE RESULTS FOR THIS SCHOOL (# = 50)

SCHOOLS ATTENDED

How many schools did you attend from kindergarten to Grade 8 (home-schooling is counted as one school)?

Percentage of Students\*

Number of students



Only English/Mostly English

Another language (or other languages) as often as English

Mostly another language (or other languages)/Only another language (or other languages)

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 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 SCHOOL (# = 50)		
<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	 44	22
No	 1	1
Don't know	 50	25
<i>Total number of students</i>		<b>22</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	 100	22
No		0
<i>Total number of students</i>		<b>22</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	 77	17
No	 14	3
Undecided	 9	2

\* 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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 50)	Female* (# = 21)	Male* (# = 29)	All Students (# = 1 396)	Female* (# = 607)	Male* (# = 789)	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>32%</b>	29%	34%	<b>34%</b>	27%	40%	<b>36%</b>	31%	40%
I am good at mathematics.	<b>40%</b>	33%	45%	<b>33%</b>	27%	38%	<b>35%</b>	27%	41%
I am able to answer difficult mathematics questions.	<b>36%</b>	29%	41%	<b>22%</b>	14%	29%	<b>24%</b>	16%	31%
Mathematics is one of my favorite subjects.	<b>14%</b>	5%	21%	<b>21%</b>	14%	25%	<b>21%</b>	18%	24%
I understand most of the mathematics I am taught.	<b>60%</b>	52%	66%	<b>60%</b>	55%	63%	<b>61%</b>	56%	64%
Mathematics is an easy subject.	<b>12%</b>	0%	21%	<b>14%</b>	10%	17%	<b>18%</b>	13%	22%
I do my best in mathematics class.	<b>60%</b>	67%	55%	<b>65%</b>	69%	61%	<b>69%</b>	72%	66%
The mathematics I learn now is useful for everyday life.	<b>40%</b>	33%	45%	<b>37%</b>	33%	39%	<b>34%</b>	31%	37%
The mathematics I learn now helps me do work in other subjects.	<b>42%</b>	38%	45%	<b>46%</b>	42%	49%	<b>47%</b>	45%	48%
I need to do well in mathematics to study what I want later.	<b>34%</b>	24%	41%	<b>48%</b>	47%	49%	<b>50%</b>	47%	53%
I need to keep taking mathematics for the kind of job I want after I leave school.	<b>36%</b>	24%	45%	<b>42%</b>	38%	45%	<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>40%</b>	19%	55%	<b>40%</b>	31%	48%	<b>41%</b>	33%	47%
algebra (e.g., solving equations, simplifying expressions with polynomials)	<b>36%</b>	29%	41%	<b>44%</b>	43%	45%	<b>43%</b>	40%	45%
linear relations (e.g., scatter plots, lines of best fit)	<b>50%</b>	43%	55%	<b>56%</b>	52%	59%	<b>56%</b>	51%	60%
measurement (e.g., perimeter, area, volume)	<b>70%</b>	57%	79%	<b>67%</b>	63%	70%	<b>68%</b>	64%	70%
geometry (e.g., angles, parallel lines)	<b>56%</b>	48%	62%	<b>47%</b>	41%	52%	<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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 50)	Female* (# = 21)	Male* (# = 29)	All Students (# = 1 396)	Female* (# = 607)	Male* (# = 789)	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.	4%	0%	7%	4%	4%	4%	4%	4%	4%
I check my mathematics answers to see if they make sense.	12%	10%	14%	17%	17%	17%	16%	17%	14%
I apply new mathematics concepts to real-life problems.	4%	0%	7%	4%	3%	5%	4%	3%	4%
I take time to discuss my mathematics assignments with my classmates.	4%	0%	7%	5%	5%	5%	5%	5%	4%
I look for more than one way to solve mathematics problems.	10%	5%	14%	10%	10%	11%	10%	9%	11%
Percentage of students indicating they complete their mathematics homework at the following frequencies:‡									
I am not usually assigned any mathematics homework	20%	24%	17%	7%	7%	8%	12%	11%	13%
Never or almost never	12%	0%	21%	7%	4%	9%	7%	5%	8%
Sometimes	34%	43%	28%	29%	25%	32%	27%	25%	29%
Often	16%	14%	17%	33%	37%	31%	29%	30%	29%
Always	16%	14%	17%	18%	21%	16%	17%	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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 50)	Female* (# = 21)	Male* (# = 29)	All Students (# = 1 396)	Female* (# = 607)	Male* (# = 789)	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.	16%	19%	14%	14%	19%	11%	15%	22%	11%
I use the Internet.	86%	95%	79%	89%	91%	87%	85%	88%	84%
I play video games.	32%	14%	45%	30%	11%	44%	30%	12%	45%
I participate in sports or other physical activities.	44%	43%	45%	35%	26%	42%	36%	25%	44%
I participate in art, music or drama activities.	16%	10%	21%	19%	27%	13%	18%	25%	13%
I participate in other clubs or organizations.	18%	19%	17%	8%	6%	9%	9%	8%	10%
I volunteer in my community.	12%	14%	10%	4%	4%	4%	5%	5%	5%
I work at a paid job.	2%	0%	3%	4%	4%	5%	7%	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	2%	5%	0%	3%	2%	3%	2%	2%	2%
1 school	22%	19%	24%	30%	31%	28%	25%	24%	26%
2 schools	28%	19%	34%	27%	25%	28%	28%	28%	29%
3 schools	22%	29%	17%	18%	19%	17%	18%	19%	18%
4 schools	6%	10%	3%	8%	9%	8%	10%	11%	9%
5 or more schools	16%	14%	17%	9%	9%	9%	11%	12%	10%
<b>LANGUAGES SPOKEN</b>									
Percentage of students indicating that they speak the following languages at home:‡									
Only English/Mostly English	78%	62%	90%	66%	66%	66%	75%	74%	76%
Another language (or other languages) as often as English	14%	29%	3%	19%	21%	17%	13%	15%	12%
Mostly another language (or other languages)/ Only another language (or other languages)	2%	5%	0%	10%	9%	11%	7%	7%	7%
Percentage of students indicating the languages people speak to them at home:‡									
Only English/Mostly English	76%	67%	83%	58%	58%	57%	70%	69%	71%
Another language (or other languages) as often as English	8%	19%	0%	17%	17%	16%	11%	12%	11%
Mostly another language (or other languages)/ Only another language (or other languages)	8%	5%	10%	17%	16%	18%	11%	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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 50)	Female* (# = 21)	Male* (# = 29)	All Students (# = 1 396)	Female* (# = 607)	Male* (# = 789)	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	44%	33%	52%	51%	56%	47%	43%	47%	40%
No	2%	0%	3%	1%	1%	1%	1%	1%	2%
Don't know	50%	62%	41%	42%	38%	46%	50%	47%	52%
Percentage of students indicating they were told how much the assessment will count as part of their class mark:‡									
	All Students (# = 22)	Female* (# = 7)	Male* (# = 15)	All Students (# = 712)	Female* (# = 339)	Male* (# = 373)	All Students (# = 12 990)	Female* (# = 6 226)	Male* (# = 6 764)
Yes	100%	100%	100%	96%	95%	97%	88%	89%	88%
No	0%	0%	0%	4%	4%	3%	11%	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 (# = 22)	Female* (# = 7)	Male* (# = 15)	All Students (# = 712)	Female* (# = 339)	Male* (# = 373)	All Students (# = 12 990)	Female* (# = 6 226)	Male* (# = 6 764)
Yes	77%	100%	67%	71%	71%	71%	77%	79%	76%
No	14%	0%	20%	10%	7%	14%	8%	6%	10%
Undecided	9%	0%	13%	19%	22%	16%	14%	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 SCHOOL (# = 133)

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.	14	25	59	79
I am good at mathematics.	20	24	54	72
I am able to answer difficult mathematics questions.	15	38	45	60
Mathematics is one of my favourite subjects.	39	26	34	45
I understand most of the mathematics I am taught.	8	17	74	99
Mathematics is an easy subject.	43	35	21	28
I do my best in mathematics class.	11	14	72	96
The mathematics I learn now is useful for everyday life.	40	35	23	31
The mathematics I learn now helps me do work in other subjects.	17	23	59	78
I need to do well in mathematics to study what I want later.	14	29	56	75
I need to keep taking mathematics for the kind of job I want after I leave school.	14	26	59	78

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	43	19	25
algebra (e.g., solving equations, simplifying expressions with polynomials)		21	45	31	41
linear relations (e.g., scatter plots, lines of best fit)	6	32	41	20	26
analytic geometry (e.g., slope, y-intercept, equations of lines)	9	16	43	31	41
measurement (e.g., perimeter, area, volume)		17	43	36	48
geometry (e.g., angles, parallel lines)	6	24	44	24	32

\* 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 SCHOOL (# = 133)

 Never or almost never

 Sometimes

 Often

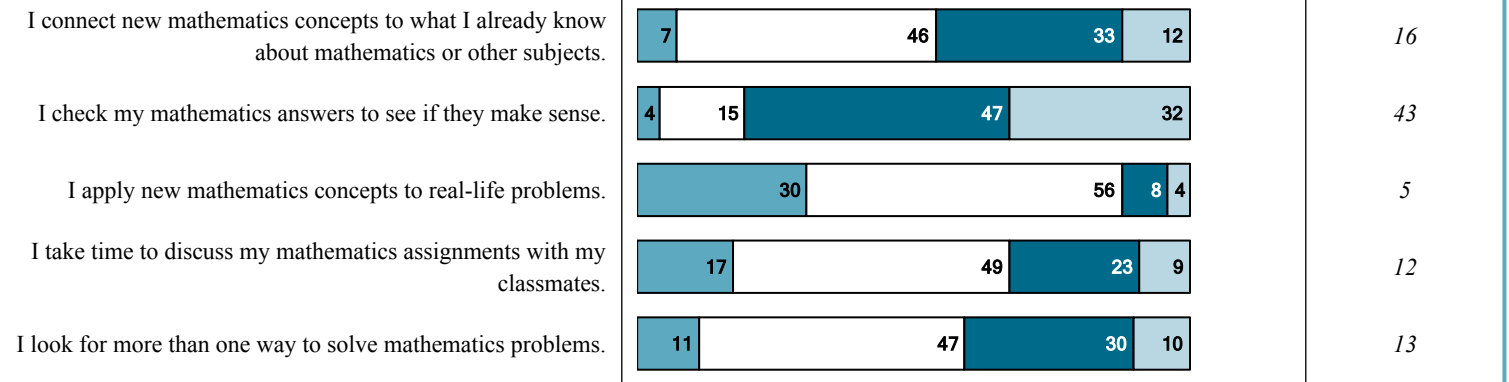
 Very Often

DOING MATHEMATICS

How often do you do the following when studying mathematics or working on a mathematics problem?

Percentage of Students\*

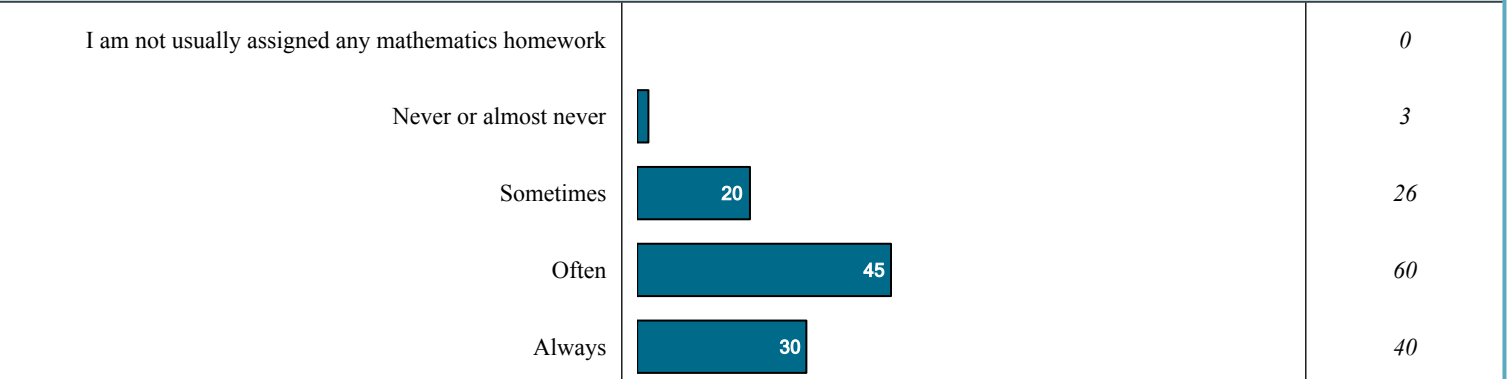
Number of students who answered "very often"



How often do you complete your mathematics homework?

Percentage of Students\*

Number of students



\* 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 SCHOOL (# = 133)



OUT-OF-SCHOOL ACTIVITIES

How often do you do the following when you are not at school?		Percentage of Students*				<i>Number of students who answered "every day or almost every day"</i>
I read by myself.		14	37	31	16	21
I use the Internet.		5			92	123
I play video games.		25	30	17	26	35
I participate in sports or other physical activities.		8	12	39	38	51
I participate in art, music or drama activities.		37	17	22	20	27
I participate in other clubs or organizations.		36	18	29	13	17
I volunteer in my community.		28		45	25	1
I work at a paid job.				69	5	4

\* 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

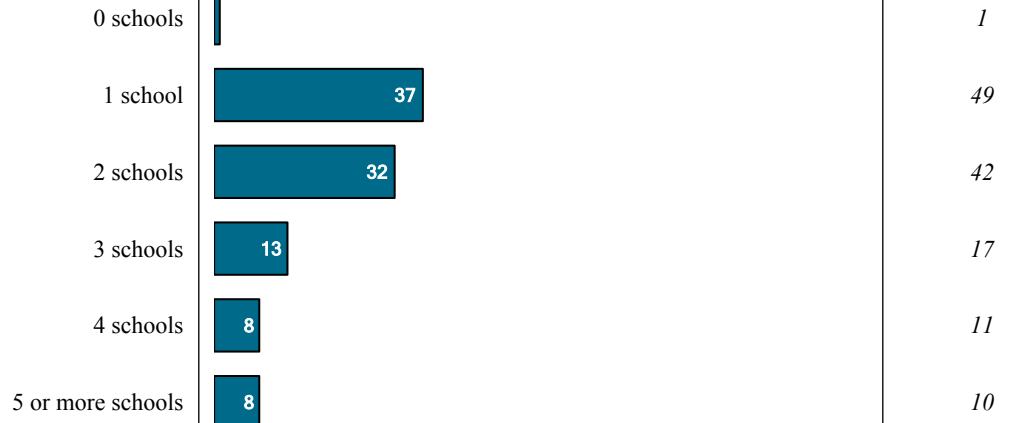
STUDENT QUESTIONNAIRE RESULTS FOR THIS SCHOOL (# = 133)

SCHOOLS ATTENDED

How many schools did you attend from kindergarten to Grade 8 (home-schooling is counted as one school)?

Percentage of Students\*

Number of students



Only English/Mostly English

Another language (or other languages) as often as English

Mostly another language (or other languages)/Only another language (or other languages)

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 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 SCHOOL (# = 133)

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	86	114
No	1	1
Don't know	11	15
<i>Total number of students</i>		<b>114</b>

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	111
No	3	3
<i>Total number of students</i>		<b>114</b>

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	72	82
No	9	10
Undecided	19	22

\* 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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 133)	Female* (# = 68)	Male* (# = 65)	All Students (# = 7 092)	Female* (# = 3 514)	Male* (# = 3 578)	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>59%</b>	53%	66%	<b>58%</b>	52%	64%	<b>58%</b>	53%	63%
I am good at mathematics.	<b>54%</b>	51%	57%	<b>54%</b>	48%	59%	<b>56%</b>	50%	61%
I am able to answer difficult mathematics questions.	<b>45%</b>	38%	52%	<b>49%</b>	41%	57%	<b>48%</b>	40%	57%
Mathematics is one of my favorite subjects.	<b>34%</b>	29%	38%	<b>40%</b>	33%	47%	<b>41%</b>	36%	47%
I understand most of the mathematics I am taught.	<b>74%</b>	75%	74%	<b>77%</b>	75%	79%	<b>75%</b>	72%	77%
Mathematics is an easy subject.	<b>21%</b>	19%	23%	<b>30%</b>	25%	34%	<b>29%</b>	25%	34%
I do my best in mathematics class.	<b>72%</b>	75%	69%	<b>71%</b>	74%	67%	<b>73%</b>	76%	69%
The mathematics I learn now is useful for everyday life.	<b>23%</b>	25%	22%	<b>35%</b>	30%	39%	<b>33%</b>	29%	36%
The mathematics I learn now helps me do work in other subjects.	<b>59%</b>	57%	60%	<b>58%</b>	57%	59%	<b>57%</b>	56%	59%
I need to do well in mathematics to study what I want later.	<b>56%</b>	54%	58%	<b>66%</b>	62%	70%	<b>64%</b>	62%	67%
I need to keep taking mathematics for the kind of job I want after I leave school.	<b>59%</b>	56%	62%	<b>59%</b>	56%	63%	<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>	57%	66%	<b>70%</b>	63%	76%	<b>68%</b>	61%	74%
algebra (e.g., solving equations, simplifying expressions with polynomials)	<b>76%</b>	76%	75%	<b>73%</b>	71%	75%	<b>70%</b>	69%	72%
linear relations (e.g., scatter plots, lines of best fit)	<b>61%</b>	54%	68%	<b>64%</b>	59%	69%	<b>60%</b>	55%	66%
analytic geometry (e.g., slope, y-intercept, equations of lines)	<b>74%</b>	75%	72%	<b>65%</b>	62%	67%	<b>62%</b>	59%	66%
measurement (e.g., perimeter, area, volume)	<b>79%</b>	78%	80%	<b>79%</b>	74%	83%	<b>78%</b>	74%	82%
geometry (e.g., angles, parallel lines)	<b>68%</b>	65%	72%	<b>74%</b>	70%	77%	<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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 133)	Female* (# = 68)	Male* (# = 65)	All Students (# = 7 092)	Female* (# = 3 514)	Male* (# = 3 578)	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.	12%	10%	14%	12%	12%	13%	11%	11%	11%
I check my mathematics answers to see if they make sense.	32%	37%	28%	31%	33%	29%	30%	33%	26%
I apply new mathematics concepts to real-life problems.	4%	0%	8%	5%	4%	7%	5%	4%	6%
I take time to discuss my mathematics assignments with my classmates.	9%	15%	3%	11%	13%	9%	11%	12%	10%
I look for more than one way to solve mathematics problems.	10%	10%	9%	13%	11%	15%	12%	11%	14%
Percentage of students indicating they complete their mathematics homework at the following frequencies:‡									
I am not usually assigned any mathematics homework	0%	0%	0%	<1%	1%	<1%	1%	1%	2%
Never or almost never	2%	0%	5%	5%	3%	7%	5%	3%	7%
Sometimes	20%	16%	23%	21%	16%	25%	21%	17%	26%
Often	45%	47%	43%	40%	38%	41%	36%	36%	37%
Always	30%	37%	23%	30%	37%	22%	30%	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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 133)	Female* (# = 68)	Male* (# = 65)	All Students (# = 7 092)	Female* (# = 3 514)	Male* (# = 3 578)	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.	16%	25%	6%	21%	27%	15%	21%	27%	14%
I use the Internet.	92%	94%	91%	92%	93%	91%	90%	91%	89%
I play video games.	26%	6%	48%	23%	8%	39%	24%	7%	42%
I participate in sports or other physical activities.	38%	24%	54%	41%	34%	48%	42%	34%	49%
I participate in art, music or drama activities.	20%	28%	12%	22%	28%	17%	20%	26%	14%
I participate in other clubs or organizations.	13%	12%	14%	12%	11%	14%	13%	11%	14%
I volunteer in my community.	1%	1%	0%	3%	3%	4%	4%	4%	4%
I work at a paid job.	3%	4%	2%	2%	2%	2%	4%	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	1%	0%	2%	1%	1%	1%	1%	<1%	1%
1 school	37%	41%	32%	27%	27%	28%	26%	26%	26%
2 schools	32%	28%	35%	33%	34%	33%	32%	32%	32%
3 schools	13%	9%	17%	19%	19%	19%	19%	19%	19%
4 schools	8%	12%	5%	8%	8%	8%	9%	9%	9%
5 or more schools	8%	7%	8%	6%	6%	6%	7%	7%	7%
<b>LANGUAGES SPOKEN</b>									
Percentage of students indicating that they speak the following languages at home:‡									
Only English/Mostly English	77%	72%	82%	56%	56%	56%	68%	69%	68%
Another language (or other languages) as often as English	17%	19%	14%	24%	25%	22%	17%	17%	16%
Mostly another language (or other languages)/ Only another language (or other languages)	5%	6%	3%	14%	12%	15%	9%	8%	10%
Percentage of students indicating the languages people speak to them at home:‡									
Only English/Mostly English	70%	65%	75%	45%	45%	45%	61%	61%	60%
Another language (or other languages) as often as English	14%	16%	12%	20%	21%	19%	15%	15%	14%
Mostly another language (or other languages)/ Only another language (or other languages)	12%	13%	11%	26%	25%	28%	16%	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 SCHOOL, BOARD AND PROVINCE (all students, female, male)	School			Board			Province		
	All Students (# = 133)	Female* (# = 68)	Male* (# = 65)	All Students (# = 7 092)	Female* (# = 3 514)	Male* (# = 3 578)	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	86%	90%	82%	74%	77%	71%	68%	71%	65%
No	1%	1%	0%	1%	1%	1%	1%	1%	1%
Don't know	11%	6%	17%	18%	14%	21%	24%	21%	27%
Percentage of students indicating they were told how much the assessment will count as part of their class mark:†‡									
	All Students (# = 114)	Female* (# = 61)	Male* (# = 53)	All Students (# = 5 272)	Female* (# = 2 717)	Male* (# = 2 555)	All Students (# = 61 236)	Female* (# = 32 782)	Male* (# = 28 454)
Yes	97%	98%	96%	99%	99%	98%	94%	94%	94%
No	3%	2%	4%	1%	1%	1%	5%	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 (# = 114)	Female* (# = 61)	Male* (# = 53)	All Students (# = 5 272)	Female* (# = 2 717)	Male* (# = 2 555)	All Students (# = 61 236)	Female* (# = 32 782)	Male* (# = 28 454)
Yes	72%	75%	68%	76%	77%	75%	79%	81%	77%
No	9%	5%	13%	11%	8%	14%	9%	7%	12%
Undecided	19%	20%	19%	13%	15%	11%	11%	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 the school principal.
<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.