Education Quality and Accountability Office

EQAO

# School Board Report

## Grade 9 Assessment of Mathematics, 2018–2019

### Board: Greater Essex County DSB (66028)

On behalf of EQAO, I am pleased to share the results of the 2018–2019 Grade 9 Assessment of Mathematics. You will also find data from previous years along with demographic and attitudinal information as context for interpreting the achievement results.

EQAO's independent data are grounded in our assessment of every student in relation to *Ontario Curriculum* learning expectations and are provided at the school, board, provincial and individual student levels to inform educators' professional practice. We believe that, through evidence-informed decisions based on achievement, attitudinal, contextual and behavioural data, it is possible to foster equitable and inclusive learning models benefiting each student.

Analyzing EQAO data over the years provides a larger context that acknowledges special circumstances affecting student achievement. For example, school boards have been investigating the impact student attendance and loss of instructional time has on student achievement; when looking at the most recent data, you may wish to identify any potential relationship between lost time and student achievement.

In 2018, EQAO made changes to its accommodation policies, including eliminating the requirement for an IEP to access accommodations students normally receive during regular classroom instruction. An important reason for this change was to reduce the workload related to EQAO assessments for teachers, administrators, and parents and guardians while maintaining the integrity and comparability of our data. After considering all of our assessment administration, we noted that 13 000 fewer IEPs were indicated in our Student Data Collection in 2018 than in 2017. The agency hopes to continue implementing meaningful changes in the years to come to address the concerns of the education community.

As always, we look forward to continuing our work with you in support of student learning, and we thank you for your dedication to the meaningful education of each child and youth of this province.

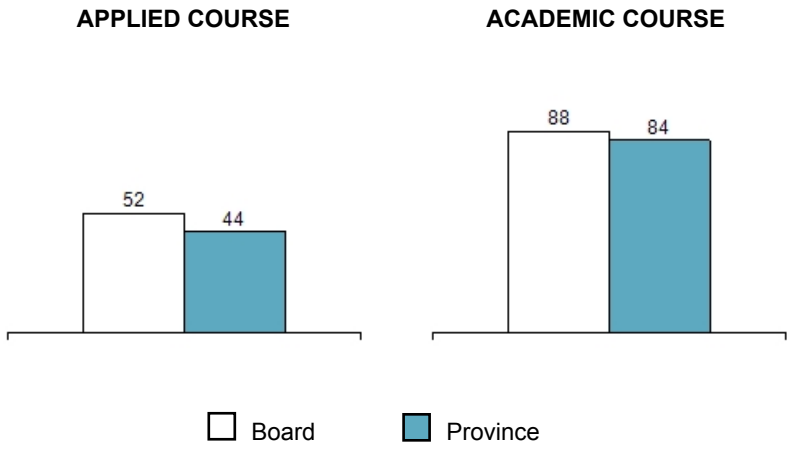
Kind regards,

Norah Marsh
Chief Executive Officer
Education Quality and Accountability Office

**WHERE TO FIND …**



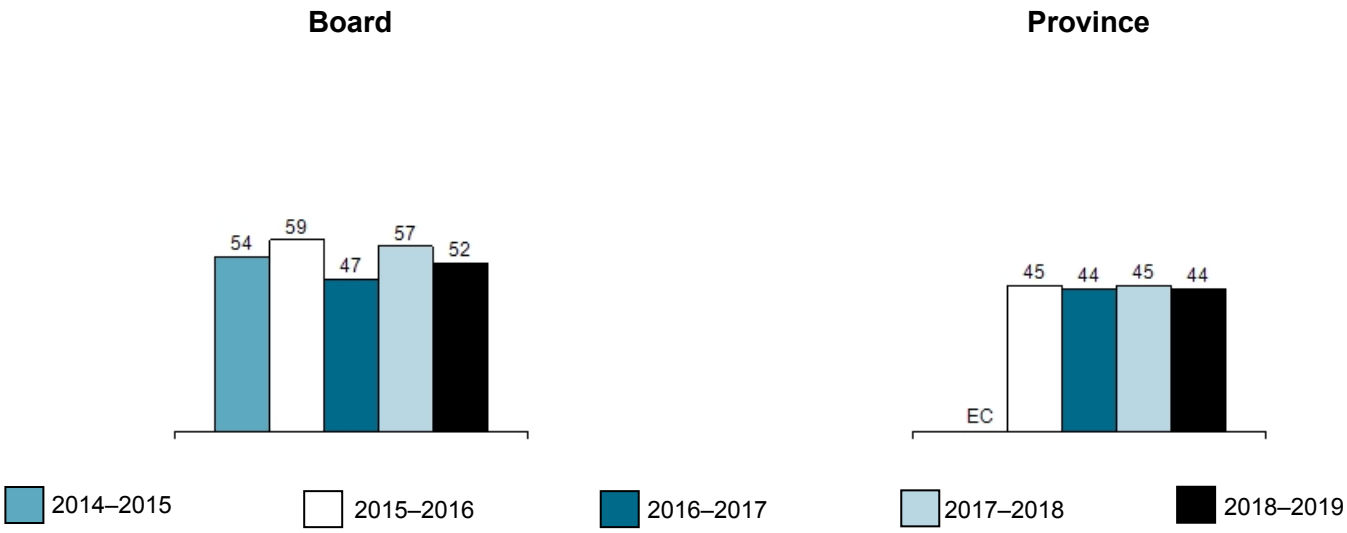
**PERCENTAGE OF ALL STUDENTS AT OR ABOVE THE PROVINCIAL STANDARD (LEVELS 3 AND 4), 2018–2019**



# Grade 9 Assessment of Mathematics, 2018–2019

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

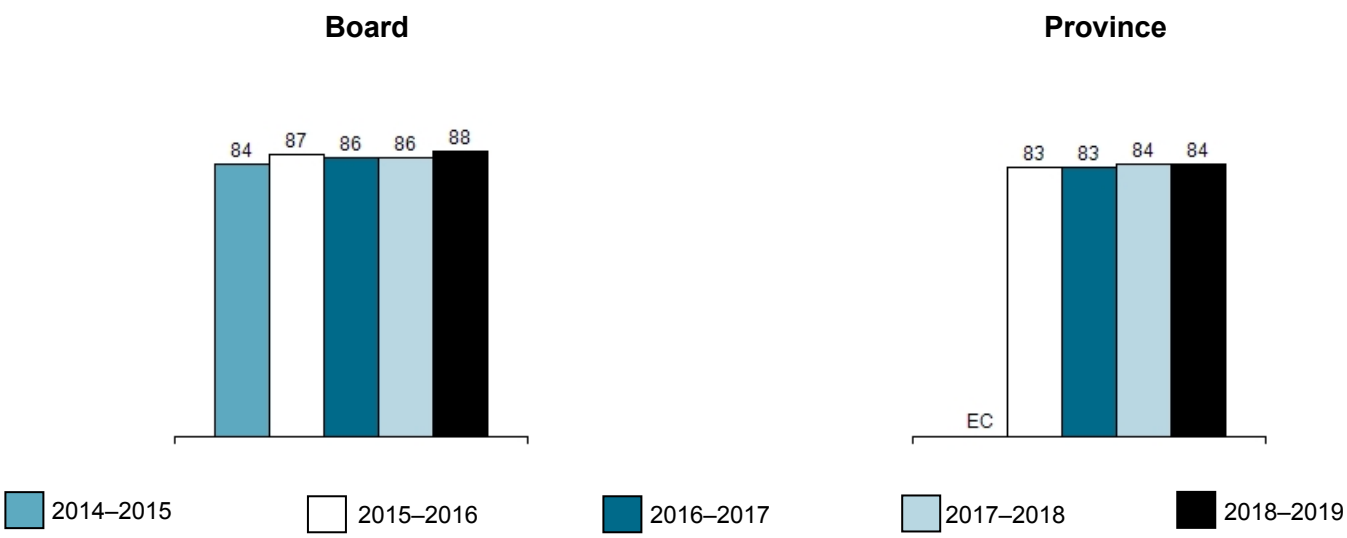
### APPLIED MATHEMATICS




**Total Number of Students**

| | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|---|---|---|---|---|---|
| Board | *794* | *769* | *772* | *792* | *800* |
| Province | *EC* | *36 005* | *34 797* | *33 451* | *33 573* |

### ACADEMIC MATHEMATICS




**Total Number of Students**

| | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|---|---|---|---|---|---|
| Board | *1 736* | *1 720* | *1 651* | *1 749* | *1 809* |
| Province | *EC* | *97 347* | *96 449* | *96 996* | *100 425* |

# Grade 9 Assessment of Mathematics, 2018–2019

## 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 by gender;
- student questionnaire results; and
- an explanation of all terms used in this report.

## HOW TO USE THIS REPORT

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

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

Learn more about us at www.eqao.com.

Grade 9 Assessment of Mathematics, 2018–2019

# Contextual Information, Applied Course

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

| | Board | | Province | |
|---|---|---|---|---|
| **Enrolment** | | | | |
| Number of students in applied mathematics course | *800* | | *33 573* | |
| Number of classes with students in applied mathematics course | *48* | | *2 375* | |
| Number of schools with applied mathematics classes | *14* | | *686* | |
| | **Number** | **Percent** | **Number** | **Percent** |
| **Participation in the Assessment** | | | | |
| Students who participated in the assessment | *780* | 98% | *32 230* | 96% |
| Participating students who received one or more accommodations* | *115* | 15% | *4 802* | 15% |
| Participating students who received special provisions*§ | *0* | 0% | *1 273* | 4% |
| Students who did not complete any part of the assessment (no data)* | *20* | 2% | *1 343* | 4% |
| **Gender**† *Based on number of students enrolled* | | | | |
| Female | *361* | 45% | *14 383* | 43% |
| Male | *439* | 55% | *19 185* | 57% |
| Gender not specified | *0* | 0% | *5* | <1% |
| **Student Status**† *Based on number of students enrolled* | | | | |
| English language learners* | *74* | 9% | *4 122* | 12% |
| Students with special education needs (excluding gifted)* | *260* | 32% | *13 644* | 41% |
| **Semester/Full Year** *Based on number of students enrolled* | | | | |
| First-semester course | *326* | 41% | *15 053* | 45% |
| Second-semester course | *474* | 59% | *16 624* | 50% |
| Full-year course | *0* | 0% | *1 896* | 6% |
| **Language and School Background**††<br>*Based on Student Questionnaire data*<br>Number of Respondents: | *671* | | *28 618* | |
| Speak only or mostly a language other than English at home | *37* | 6% | *2 011* | 7% |
| Speak another language as often as English at home | *71* | 11% | *3 752* | 13% |
| Attended three or more elementary schools from kindergarten to Grade 8 | *236* | 35% | *11 089* | 39% |

* See the Explanation of Terms.
† Contextual data pertaining to "gender" and "student status" are based on information provided by schools and/or boards through the Student Data Collection process.
†† Contextual data pertaining to "school background" and "language" are gathered from the Student Questionnaire completed by students.
§ Beginning in 2017–2018, the special provisions category includes extended periodic supervised breaks only.

Grade 9 Assessment of Mathematics, 2018–2019

## Contextual Information, Applied Course (continued)

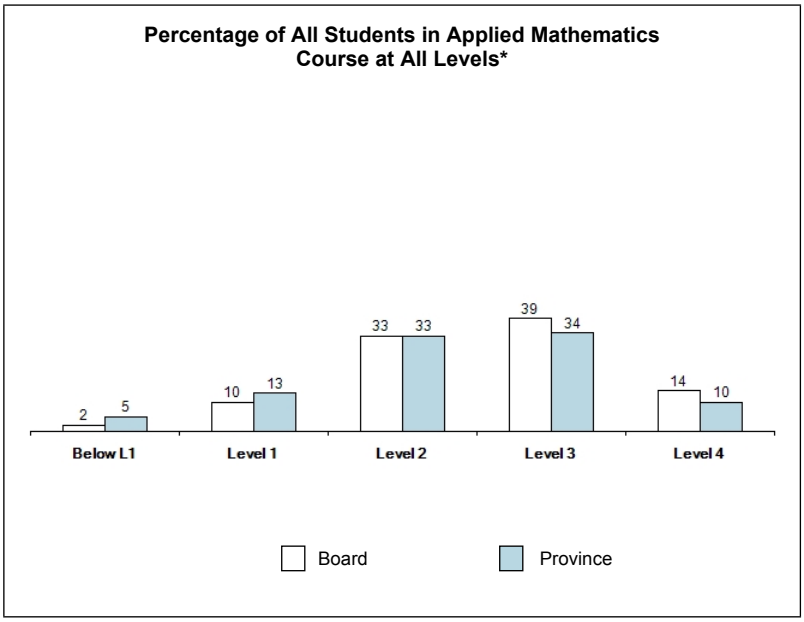
| | Board | | Province | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| **Year Student Entered Current School†** | | | | |
| Year of the assessment | *652* | 82% | *30 074* | 90% |
| Year prior to the assessment | *117* | 15% | *2 748* | 8% |
| 2 years prior to the assessment | *20* | 2% | *548* | 2% |
| 3 or more years prior to the assessment | *11* | 1% | *154* | <1% |
| Data not available | *0* | 0% | *49* | <1% |
| **Year Student Entered Current Board†** | | | | |
| Year of the assessment | *100* | 12% | *5 455* | 16% |
| Year prior to the assessment | *51* | 6% | *2 281* | 7% |
| 2 years prior to the assessment | *40* | 5% | *1 714* | 5% |
| 3 or more years prior to the assessment | *609* | 76% | *23 756* | 71% |
| Data not available | *0* | 0% | *367* | 1% |

† Contextual data are based on information provided by schools and/or boards through the Student Data Collection process.

Grade 9 Assessment of Mathematics, 2018–2019

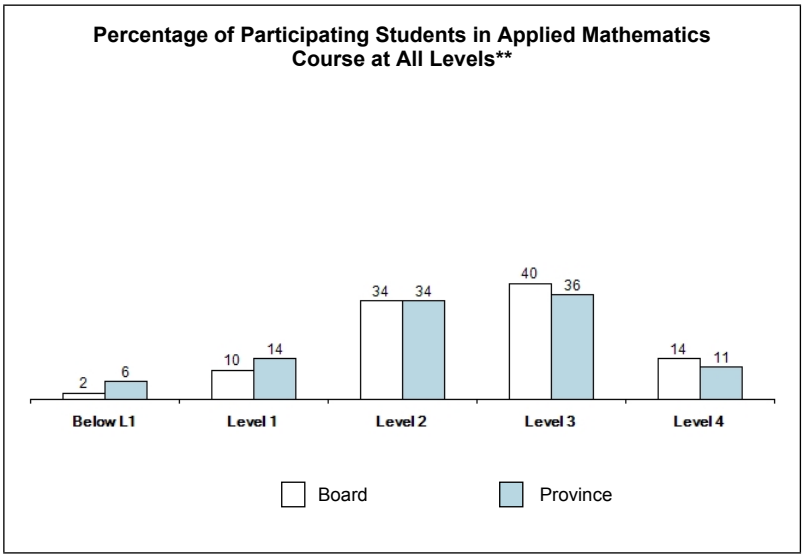
# Results for All Students, Applied Course

| All Students* | | | |
|---|---|---|---|
| *Number of Students* | Board *800* | | Province *33 573* |
| | # | % | % |
| **Level 4** | *110* | 14% | 10% |
| **Level 3** | *309* | 39% | 34% |
| **Level 2** | *265* | 33% | 33% |
| **Level 1** | *77* | 10% | 13% |
| **Below Level 1** | *19* | 2% | 5% |
| *Participating Students* | *780* | 98% | 96% |
| **No Data** | *20* | 2% | 4% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **52%** | **44%** |




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

| Participating Students** | | | |
|---|---|---|---|
| *Number of Students* | Board *780* | | Province *32 230* |
| | # | % | % |
| **Level 4** | *110* | 14% | 11% |
| **Level 3** | *309* | 40% | 36% |
| **Level 2** | *265* | 34% | 34% |
| **Level 1** | *77* | 10% | 14% |
| **Below Level 1** | *19* | 2% | 6% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **54%** | **46%** |

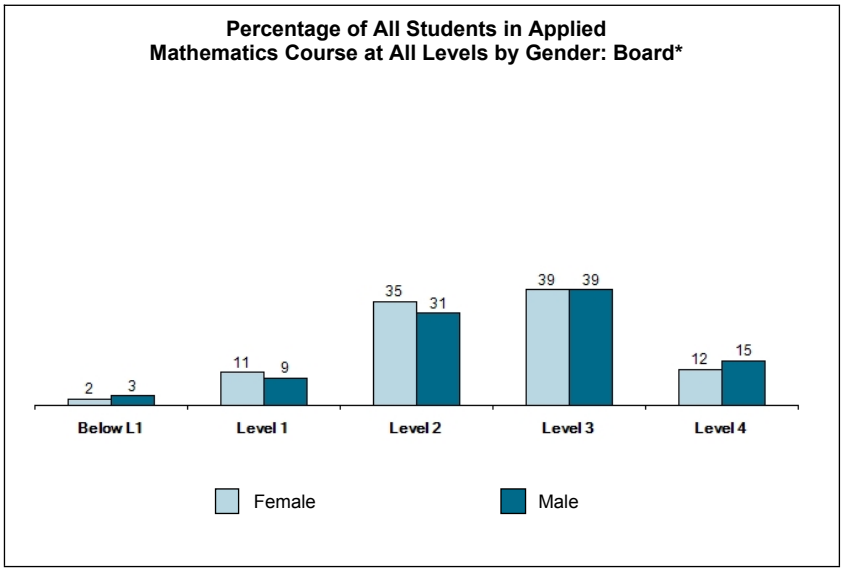



* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.
** Because percentages in tables and graphs are rounded, percentages may not add up to 100.
† The percentages of students at Levels 3 and 4 are rounded and may not add up to the percentage of students meeting the provincial standard.

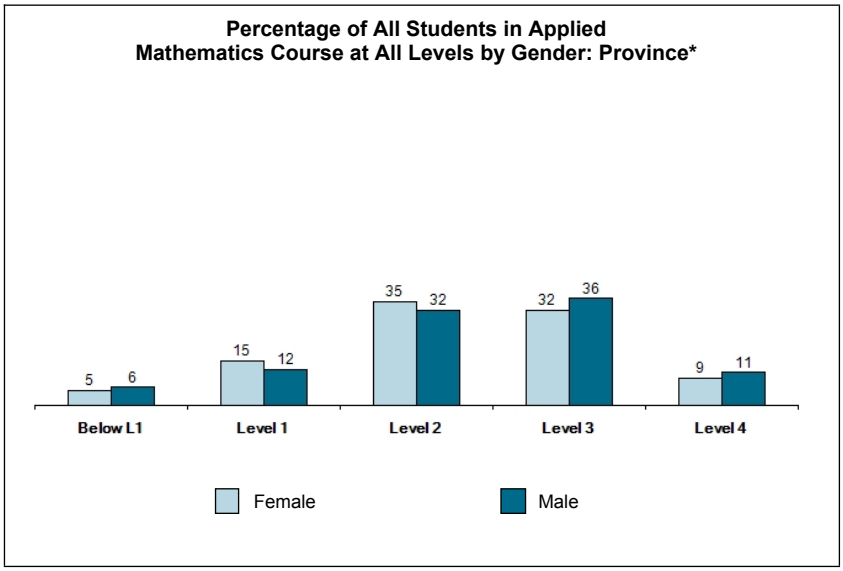
Grade 9 Assessment of Mathematics, 2018–2019

# Results by Gender††, Applied Course

| All Students: Board by Gender* | | | | |
|---|---|---|---|---|
| *Number of Students* | Female *361* | | Male *439* | |
| | # | % | # | % |
| **Level 4** | *43* | 12% | *67* | 15% |
| **Level 3** | *139* | 39% | *170* | 39% |
| **Level 2** | *128* | 35% | *137* | 31% |
| **Level 1** | *39* | 11% | *38* | 9% |
| **Below Level 1** | *8* | 2% | *11* | 3% |
| *Participating Students* | *357* | 99% | *423* | 96% |
| **No Data** | *4* | 1% | *16* | 4% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **50%** | | **54%** |




| All Students: Province by Gender* | | | | |
|---|---|---|---|---|
| *Number of Students* | Female *14 383* | | Male *19 185* | |
| | # | % | # | % |
| **Level 4** | *1 285* | 9% | *2 140* | 11% |
| **Level 3** | *4 672* | 32% | *6 817* | 36% |
| **Level 2** | *4 994* | 35% | *6 055* | 32% |
| **Level 1** | *2 099* | 15% | *2 331* | 12% |
| **Below Level 1** | *752* | 5% | *1 080* | 6% |
| *Participating Students* | *13 802* | 96% | *18 423* | 96% |
| **No Data** | *581* | 4% | *762* | 4% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **41%** | | **47%** |

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† The percentages of students at Levels 3 and 4 are rounded and may not add up to the percentage of students meeting the provincial standard.
†† Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2018–2019

# Contextual Information, Academic Course

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

| | Board | | Province | |
|---|---|---|---|---|
| **Enrolment** | | | | |
| Number of students in academic mathematics course | *1 809* | | *100 425* | |
| Number of classes with students in academic mathematics course | *76* | | *4 450* | |
| Number of schools with academic mathematics classes | *13* | | *669* | |
| | **Number** | **Percent** | **Number** | **Percent** |
| **Participation in the Assessment** | | | | |
| Students who participated in the assessment | *1 804* | 100% | *99 382* | 99% |
| Participating students who received one or more accommodations* | *43* | 2% | *3 002* | 3% |
| Participating students who received special provisions*§ | *0* | 0% | *2 474* | 2% |
| Students who did not complete any part of the assessment (no data)* | *5* | <1% | *1 043* | 1% |
| **Gender**† *Based on number of students enrolled* | | | | |
| Female | *906* | 50% | *51 250* | 51% |
| Male | *903* | 50% | *49 173* | 49% |
| Gender not specified | *0* | 0% | *2* | <1% |
| **Student Status**† *Based on number of students enrolled* | | | | |
| English language learners* | *34* | 2% | *7 517* | 7% |
| Students with special education needs (excluding gifted)* | *99* | 5% | *8 782* | 9% |
| **Semester/Full Year** *Based on number of students enrolled* | | | | |
| First-semester course | *827* | 46% | *45 453* | 45% |
| Second-semester course | *621* | 34% | *45 193* | 45% |
| Full-year course | *361* | 20% | *9 779* | 10% |
| **Language and School Background**††<br>*Based on Student Questionnaire data*<br>Number of Respondents: | *1 591* | | *91 396* | |
| Speak only or mostly a language other than English at home | *106* | 7% | *8 356* | 9% |
| Speak another language as often as English at home | *231* | 15% | *16 370* | 18% |
| Attended three or more elementary schools from kindergarten to Grade 8 | *431* | 27% | *32 773* | 36% |

* See the Explanation of Terms.

† Contextual data pertaining to "gender" and "student status" are based on information provided by schools and/or boards through the Student Data Collection process.

†† Contextual data pertaining to "school background" and "language" are gathered from the Student Questionnaire completed by students.

§ Beginning in 2017–2018, the special provisions category includes extended periodic supervised breaks only.

Grade 9 Assessment of Mathematics, 2018–2019

## Contextual Information, Academic Course (continued)

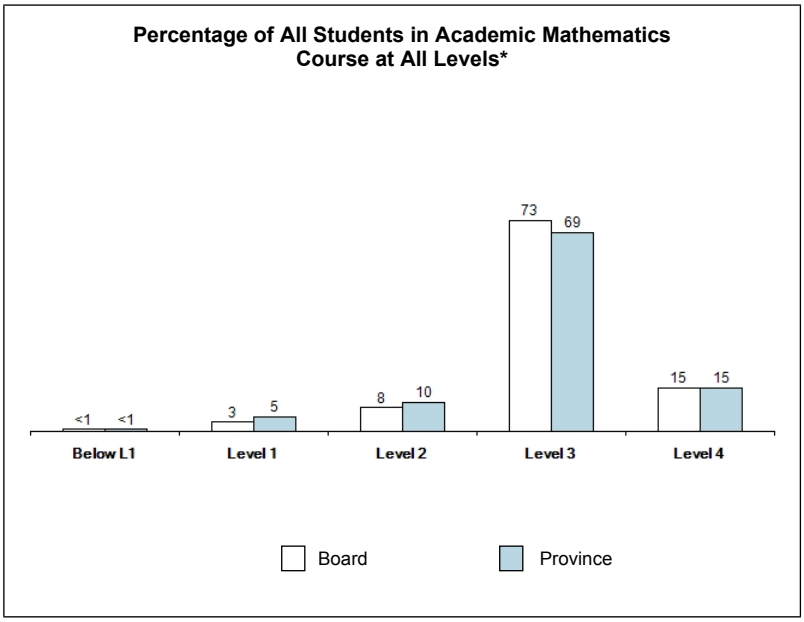
| | Board | | Province | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| **Year Student Entered Current School†** | | | | |
| Year of the assessment | *1 740* | 96% | *98 153* | 98% |
| Year prior to the assessment | *56* | 3% | *1 457* | 1% |
| 2 years prior to the assessment | *10* | 1% | *484* | <1% |
| 3 or more years prior to the assessment | *3* | <1% | *62* | <1% |
| Data not available | *0* | 0% | *269* | <1% |
| **Year Student Entered Current Board†** | | | | |
| Year of the assessment | *306* | 17% | *16 101* | 16% |
| Year prior to the assessment | *68* | 4% | *4 004* | 4% |
| 2 years prior to the assessment | *53* | 3% | *4 049* | 4% |
| 3 or more years prior to the assessment | *1 382* | 76% | *75 016* | 75% |
| Data not available | *0* | 0% | *1 255* | 1% |

† Contextual data are based on information provided by schools and/or boards through the Student Data Collection process.

Grade 9 Assessment of Mathematics, 2018–2019

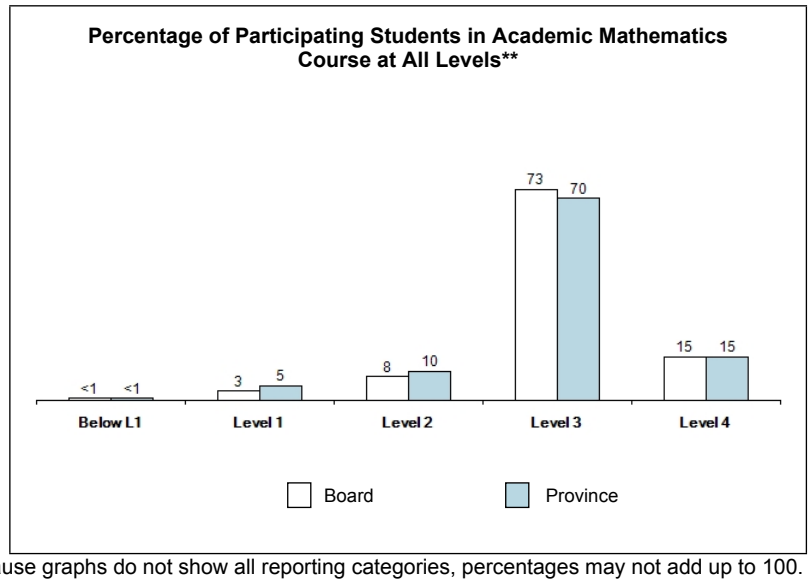
# Results for All Students, Academic Course

| All Students* | | | |
|---|---|---|---|
| *Number of Students* | Board *1 809* | | Province *100 425* |
| | # | % | % |
| **Level 4** | *279* | 15% | 15% |
| **Level 3** | *1 317* | 73% | 69% |
| **Level 2** | *152* | 8% | 10% |
| **Level 1** | *49* | 3% | 5% |
| **Below Level 1** | *7* | <1% | <1% |
| *Participating Students* | *1 804* | 100% | 99% |
| **No Data** | *5* | <1% | 1% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **88%** | **84%** |




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

| Participating Students** | | | |
|---|---|---|---|
| *Number of Students* | Board *1 804* | | Province *99 382* |
| | # | % | % |
| **Level 4** | *279* | 15% | 15% |
| **Level 3** | *1 317* | 73% | 70% |
| **Level 2** | *152* | 8% | 10% |
| **Level 1** | *49* | 3% | 5% |
| **Below Level 1** | *7* | <1% | <1% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **88%** | **85%** |

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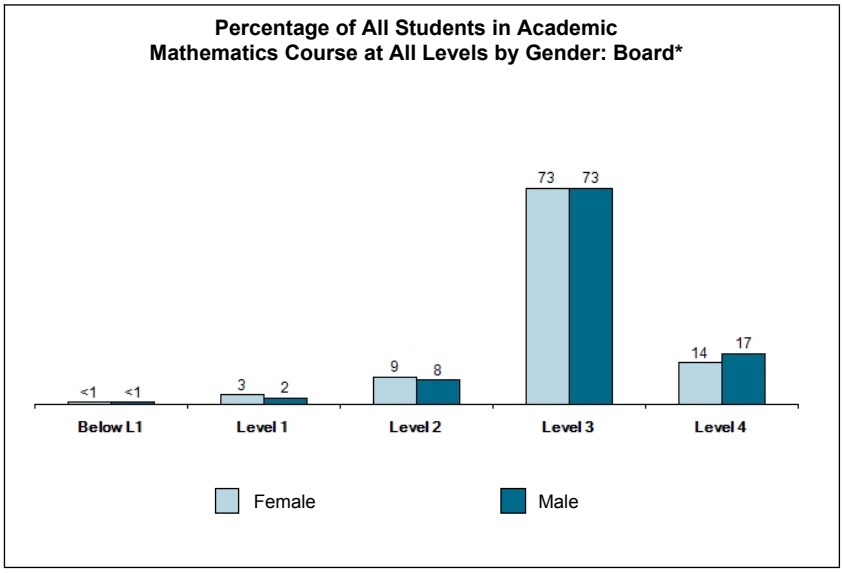
** Because percentages in tables and graphs are rounded, percentages may not add up to 100.
† The percentages of students at Levels 3 and 4 are rounded and may not add up to the percentage of students meeting the provincial standard.

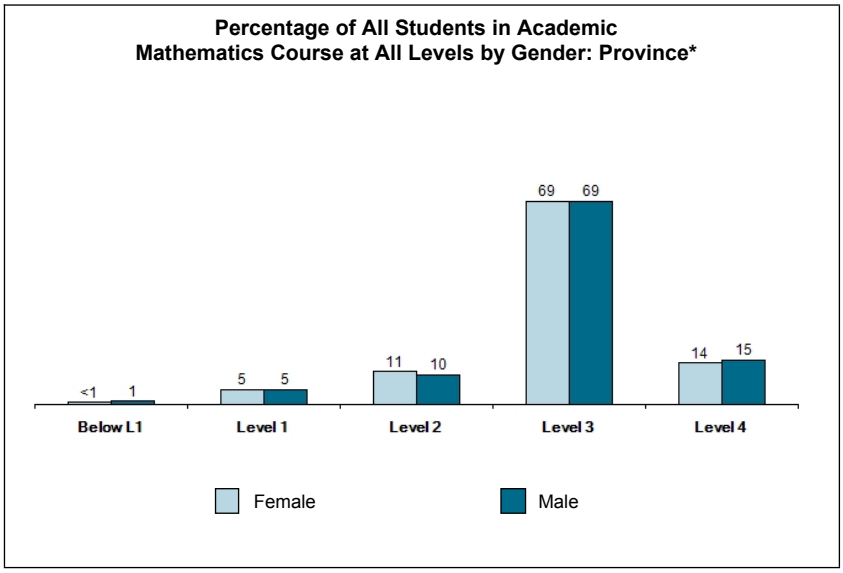
Grade 9 Assessment of Mathematics, 2018–2019

# Results by Gender††, Academic Course

| All Students: Board by Gender* | | | | |
|---|---|---|---|---|
| *Number of Students* | **Female** ***906*** | | **Male** ***903*** | |
| | # | % | # | % |
| **Level 4** | *127* | 14% | *152* | 17% |
| **Level 3** | *659* | 73% | *658* | 73% |
| **Level 2** | *84* | 9% | *68* | 8% |
| **Level 1** | *28* | 3% | *21* | 2% |
| **Below Level 1** | *4* | <1% | *3* | <1% |
| *Participating Students* | *902* | 100% | *902* | 100% |
| **No Data** | *4* | <1% | *1* | <1% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **87%** | | **90%** |




| All Students: Province by Gender* | | | | |
|---|---|---|---|---|
| *Number of Students* | **Female** ***51 250*** | | **Male** ***49 173*** | |
| | # | % | # | % |
| **Level 4** | *7 315* | 14% | *7 309* | 15% |
| **Level 3** | *35 328* | 69% | *34 032* | 69% |
| **Level 2** | *5 426* | 11% | *4 761* | 10% |
| **Level 1** | *2 483* | 5% | *2 295* | 5% |
| **Below Level 1** | *166* | <1% | *265* | 1% |
| *Participating Students* | *50 718* | 99% | *48 662* | 99% |
| **No Data** | *532* | 1% | *511* | 1% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | | **83%** | | **84%** |




* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.
† The percentages of students at Levels 3 and 4 are rounded and may not add up to the percentage of students meeting the provincial standard.
†† Includes only students for whom gender data were available.

Grade 9 Assessment of Mathematics, 2018–2019

# Contextual Information over Time: Applied Course

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

| | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|---|---|---|---|---|---|
| **Enrolment** | | | | | |
| Number of students in applied mathematics course | *794* | *769* | *772* | *792* | *800* |
| Number of classes with students in applied mathematics course | *47* | *47* | *46* | *49* | *48* |
| Number of schools with applied mathematics classes | *15* | *16* | *14* | *14* | *14* |
| **Participation in the Assessment** | | | | | |
| Students who participated in the assessment | 96% | 97% | 98% | 97% | 98% |
| Participating students who received one or more accommodations* | 19% | 23% | 28% | 11% | 15% |
| Participating students who received special provisions*§ | 2% | 5% | 8% | 1% | 0% |
| Students who did not complete any part of the assessment (no data)* | 4% | 3% | 2% | 3% | 2% |
| **Gender**† *Based on number of students enrolled* | | | | | |
| Female | 45% | 46% | 42% | 45% | 45% |
| Male | 55% | 54% | 58% | 55% | 55% |
| Gender not specified | 0% | 0% | 0% | 0% | 0% |
| **Student Status**† *Based on number of students enrolled* | | | | | |
| English language learners* | 2% | 4% | 8% | 7% | 9% |
| Students with special education needs (excluding gifted)* | 24% | 25% | 30% | 27% | 32% |
| **Semester/Full Year** *Based on number of students enrolled* | | | | | |
| First-semester course | 50% | 57% | 50% | 46% | 41% |
| Second-semester course | 42% | 40% | 46% | 51% | 59% |
| Full-year course | 8% | 3% | 4% | 3% | 0% |
| **Language and School Background**††<br>*Based on Student Questionnaire data* | | | | | |
| Number of Respondents: | *707* | *665* | *700* | *683* | *671* |
| Speak only or mostly a language other than English at home | 4% | 4% | 5% | 5% | 6% |
| Speak another language as often as English at home | 8% | 9% | 11% | 11% | 11% |
| Attended three or more elementary schools from kindergarten to Grade 8 | 31% | 31% | 36% | 34% | 35% |

* See the Explanation of Terms.
† Contextual data pertaining to "gender" and "student status" are based on information provided by schools and/or boards through the Student Data Collection process.
†† Contextual data pertaining to "school background" and "language" are gathered from the Student Questionnaire completed by students.
§ Beginning in 2017–2018, the special provisions category includes extended periodic supervised breaks only.

Grade 9 Assessment of Mathematics, 2018–2019

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

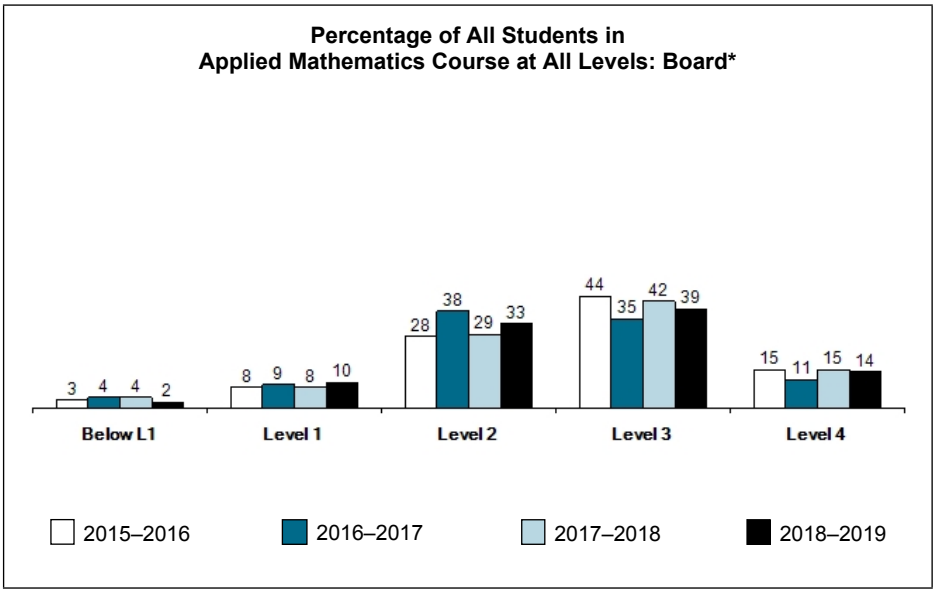
| | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|---|---|---|---|---|---|
| **Year Student Entered Current School†** | | | | | |
| Year of the assessment | These items were added in 2015–2016. | 85% | 83% | 84% | 82% |
| Year prior to the assessment | | 12% | 13% | 14% | 15% |
| 2 years prior to the assessment | | 2% | 3% | 2% | 2% |
| 3 or more years prior to the assessment | | 1% | 1% | <1% | 1% |
| Data not available | | <1% | 0% | 0% | 0% |
| **Year Student Entered Current Board†** | | | | | |
| Year of the assessment | These items were added in 2015–2016. | 22% | 14% | 19% | 12% |
| Year prior to the assessment | | 5% | 7% | 7% | 6% |
| 2 years prior to the assessment | | 2% | 3% | 6% | 5% |
| 3 or more years prior to the assessment | | 71% | 75% | 68% | 76% |
| Data not available | | <1% | <1% | <1% | 0% |

† Contextual data are based on information provided by schools and/or boards through the Student Data Collection process.

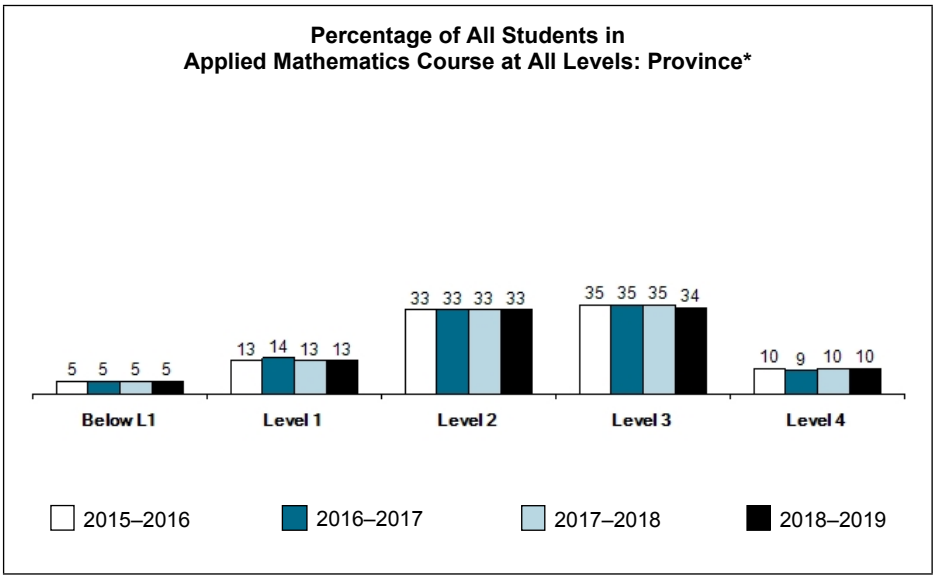
Grade 9 Assessment of Mathematics, 2018–2019

# Results for All Students over Time: Applied Course

| Board* | | | | |
|---|---|---|---|---|
| Year | '15–'16 | '16–'17 | '17–'18 | '18–'19 |
| *Number of Students* | ***769*** | ***772*** | ***792*** | ***800*** |
| **Level 4** | 15% | 11% | 15% | 14% |
| **Level 3** | 44% | 35% | 42% | 39% |
| **Level 2** | 28% | 38% | 29% | 33% |
| **Level 1** | 8% | 9% | 8% | 10% |
| **Below Level 1** | 3% | 4% | 4% | 2% |
| *Participating Students* | 97% | 98% | 97% | 98% |
| **No Data** | 3% | 2% | 3% | 2% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | **59%** | **47%** | **57%** | **52%** |




| Province* | | | | |
|---|---|---|---|---|
| Year | '15–'16 | '16–'17 | '17–'18 | '18–'19 |
| *Number of Students* | ***36 005*** | ***34 797*** | ***33 451*** | ***33 573*** |
| **Level 4** | 10% | 9% | 10% | 10% |
| **Level 3** | 35% | 35% | 35% | 34% |
| **Level 2** | 33% | 33% | 33% | 33% |
| **Level 1** | 13% | 14% | 13% | 13% |
| **Below Level 1** | 5% | 5% | 5% | 5% |
| *Participating Students* | 96% | 96% | 96% | 96% |
| **No Data** | 4% | 4% | 4% | 4% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | **45%** | **44%** | **45%** | **44%** |




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

† The percentages of students at Levels 3 and 4 are rounded and may not add up to the percentage of students meeting the provincial standard.

Grade 9 Assessment of Mathematics, 2018–2019

# Contextual Information over Time: Academic Course

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

| | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|---|---|---|---|---|---|
| **Enrolment** | | | | | |
| Number of students in academic mathematics course | *1 736* | *1 720* | *1 651* | *1 749* | *1 809* |
| Number of classes with students in academic mathematics course | *75* | *73* | *71* | *74* | *76* |
| Number of schools with academic mathematics classes | *14* | *14* | *13* | *13* | *13* |
| **Participation in the Assessment** | | | | | |
| Students who participated in the assessment | 99% | 100% | 100% | 100% | 100% |
| Participating students who received one or more accommodations* | 3% | 4% | 5% | 2% | 2% |
| Participating students who received special provisions*§ | 2% | 1% | 1% | <1% | 0% |
| Students who did not complete any part of the assessment (no data)* | 1% | <1% | <1% | <1% | <1% |
| **Gender†** *Based on number of students enrolled* | | | | | |
| Female | 50% | 52% | 52% | 51% | 50% |
| Male | 50% | 48% | 48% | 49% | 50% |
| Gender not specified | 0% | 0% | 0% | 0% | 0% |
| **Student Status†** *Based on number of students enrolled* | | | | | |
| English language learners* | 2% | 1% | 1% | 1% | 2% |
| Students with special education needs (excluding gifted)* | 3% | 4% | 6% | 6% | 5% |
| **Semester/Full Year** *Based on number of students enrolled* | | | | | |
| First-semester course | 37% | 42% | 50% | 45% | 46% |
| Second-semester course | 40% | 46% | 33% | 35% | 34% |
| Full-year course | 23% | 12% | 16% | 20% | 20% |
| **Language and School Background††** *Based on Student Questionnaire data* | | | | | |
| Number of Respondents: | *1 629* | *1 594* | *1 535* | *1 540* | *1 591* |
| Speak only or mostly a language other than English at home | 8% | 7% | 8% | 7% | 7% |
| Speak another language as often as English at home | 19% | 16% | 16% | 15% | 15% |
| Attended three or more elementary schools from kindergarten to Grade 8 | 27% | 26% | 25% | 24% | 27% |

* See the Explanation of Terms.
† Contextual data pertaining to "gender" and "student status" are based on information provided by schools and/or boards through the Student Data Collection process.
†† Contextual data pertaining to "school background" and "language" are gathered from the Student Questionnaire completed by students.
§ Beginning in 2017–2018, the special provisions category includes extended periodic supervised breaks only.

Grade 9 Assessment of Mathematics, 2018–2019

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

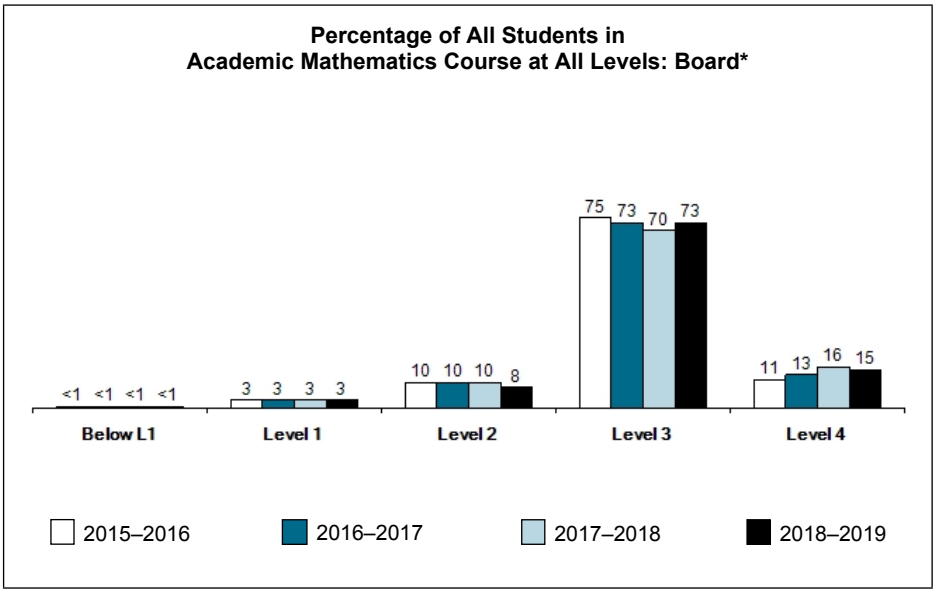
| | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|---|---|---|---|---|---|
| **Year Student Entered Current School†** | | | | | |
| Year of the assessment | These items were added in 2015–2016. | 98% | 97% | 97% | 96% |
| Year prior to the assessment | | 2% | 3% | 3% | 3% |
| 2 years prior to the assessment | | 0% | <1% | <1% | 1% |
| 3 or more years prior to the assessment | | 0% | <1% | <1% | <1% |
| Data not available | | 0% | 0% | 0% | 0% |
| **Year Student Entered Current Board†** | | | | | |
| Year of the assessment | These items were added in 2015–2016. | 19% | 16% | 17% | 17% |
| Year prior to the assessment | | 2% | 2% | 3% | 4% |
| 2 years prior to the assessment | | 2% | 2% | 2% | 3% |
| 3 or more years prior to the assessment | | 77% | 80% | 78% | 76% |
| Data not available | | 0% | 0% | 0% | 0% |

† Contextual data are based on information provided by schools and/or boards through the Student Data Collection process.

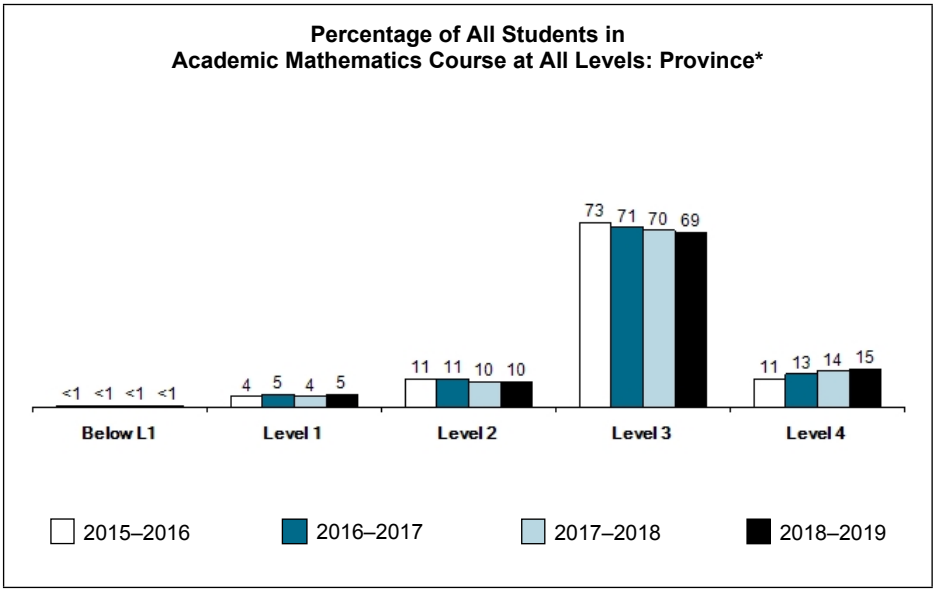
Grade 9 Assessment of Mathematics, 2018–2019

# Results for All Students over Time: Academic Course

| Board* | | | | |
|---|---|---|---|---|
| Year | '15–'16 | '16–'17 | '17–'18 | '18–'19 |
| *Number of Students* | *1 720* | *1 651* | *1 749* | *1 809* |
| **Level 4** | 11% | 13% | 16% | 15% |
| **Level 3** | 75% | 73% | 70% | 73% |
| **Level 2** | 10% | 10% | 10% | 8% |
| **Level 1** | 3% | 3% | 3% | 3% |
| **Below Level 1** | <1% | <1% | <1% | <1% |
| *Participating Students* | 100% | 100% | 100% | 100% |
| **No Data** | <1% | <1% | <1% | <1% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | **87%** | **86%** | **86%** | **88%** |




| Province* | | | | |
|---|---|---|---|---|
| Year | '15–'16 | '16–'17 | '17–'18 | '18–'19 |
| *Number of Students* | *97 347* | *96 449* | *96 996* | *100 425* |
| **Level 4** | 11% | 13% | 14% | 15% |
| **Level 3** | 73% | 71% | 70% | 69% |
| **Level 2** | 11% | 11% | 10% | 10% |
| **Level 1** | 4% | 5% | 4% | 5% |
| **Below Level 1** | <1% | <1% | <1% | <1% |
| *Participating Students* | 99% | 99% | 99% | 99% |
| **No Data** | 1% | 1% | 1% | 1% |
| **At or Above Provincial Standard (Levels 3 and 4)†** | **83%** | **83%** | **84%** | **84%** |



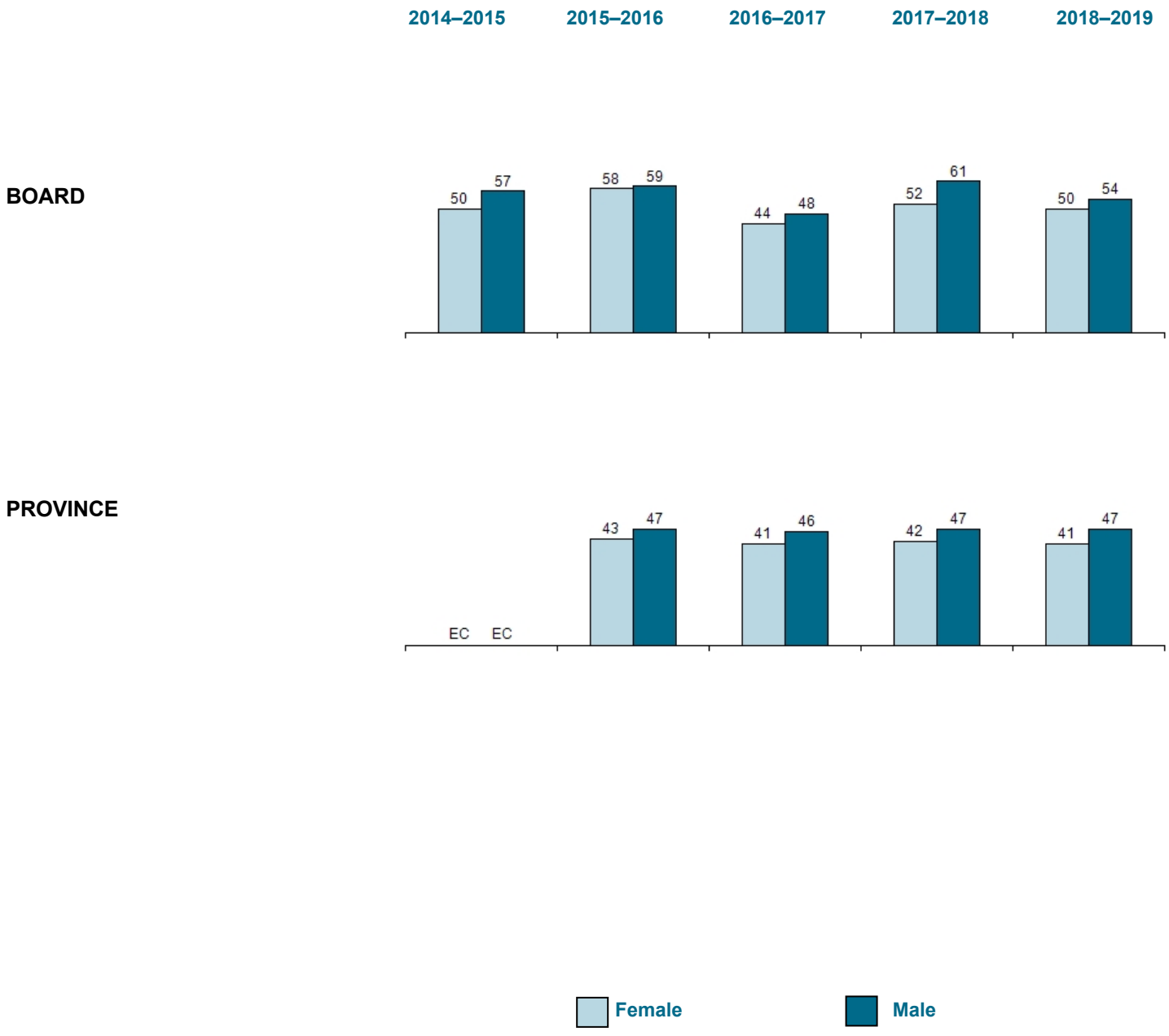

* Because percentages in tables and graphs are rounded, and because graphs do not show all reporting categories, percentages may not add up to 100.

† The percentages of students at Levels 3 and 4 are rounded and may not add up to the percentage of students meeting the provincial standard.

# Grade 9 Assessment of Mathematics, 2018–2019

## 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†

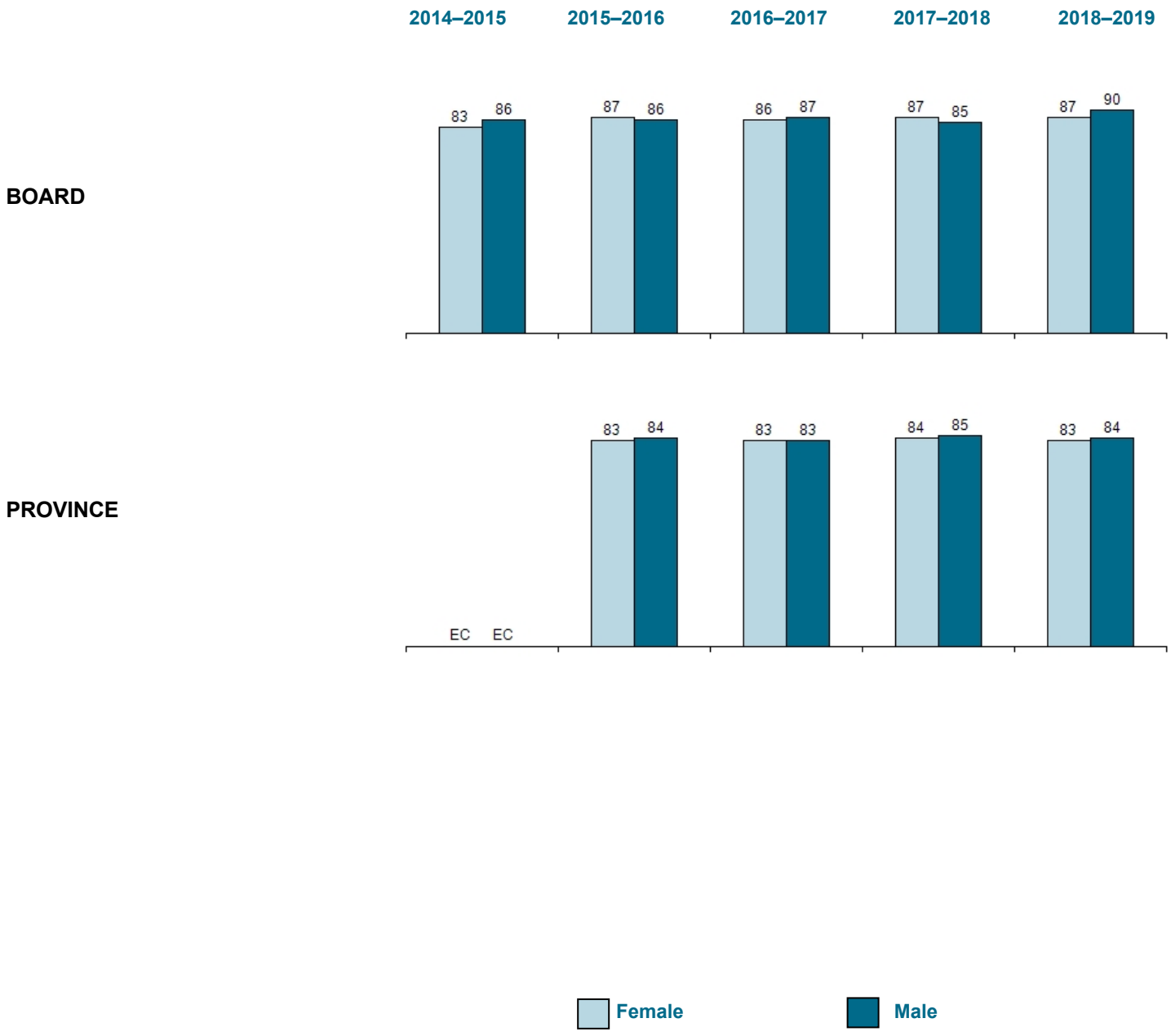
| | 2014–2015 | | 2015–2016 | | 2016–2017 | | 2017–2018 | | 2018–2019 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male |
| Board | *359* | *435* | *352* | *417* | *326* | *446* | *359* | *433* | *361* | *439* |
| Province | *EC* | *EC* | *15 748* | *20 257* | *15 212* | *19 585* | *14 646* | *18 804* | *14 383* | *19 185* |

† Includes only students for whom gender data were available.

# Grade 9 Assessment of Mathematics, 2018–2019

## 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†

| | 2014–2015 | | 2015–2016 | | 2016–2017 | | 2017–2018 | | 2018–2019 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male |
| Board | *870* | *866* | *891* | *829* | *857* | *794* | *886* | *863* | *906* | *903* |
| Province | *EC* | *EC* | *49 817* | *47 530* | *49 388* | *47 061* | *49 957* | *47 039* | *51 250* | *49 173* |

† Includes only students for whom gender data were available.

# Grade 9 Assessment of Mathematics, 2018–2019, Applied Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *671*)

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. | 25 | 34 | 41 | *273* |
| I am good at mathematics. | 27 | 34 | 39 | *259* |
| I am able to answer difficult mathematics questions. | 30 | 40 | 28 | *185* |
| Mathematics is one of my favourite subjects. | 52 | 19 | 28 | *187* |
| I understand most of the mathematics I am taught. | 11 | 20 | 68 | *459* |
| Mathematics is an easy subject. | 39 | 41 | 19 | *129* |
| I do my best in mathematics class. | 8 | 20 | 71 | *475* |
| The mathematics I learn now is useful for everyday life. | 36 | 34 | 29 | *196* |
| The mathematics I learn now helps me do work in other subjects. | 26 | 28 | 45 | *302* |
| I need to do well in mathematics to study what I want later. | 21 | 31 | 46 | *312* |
| I need to keep taking mathematics for the kind of job I want after I leave school. | 25 | 34 | 39 | *263* |

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) | 7 | 48 | 34 | 9 | *60* |
| algebra (e.g., solving equations, simplifying expressions with polynomials) | 14 | 39 | 33 | 13 | *85* |
| linear relations (e.g., scatter plots, lines of best fit) | 9 | 29 | 42 | 17 | *115* |
| measurement (e.g., perimeter, area, volume) | 6 | 23 | 36 | 33 | *220* |
| geometry (e.g., angles, parallel lines) | 15 | 32 | 31 | 20 | *132* |

* 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, 2018–2019, Applied Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *671*)

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" |
|---|---|---|---|---|---|
| | Never or almost never | Sometimes | Often | Very Often | |
| I connect new mathematics concepts to what I already know about mathematics or other subjects. | 20 | 53 | 20 | 5 | *31* |
| I check my mathematics answers to see if they make sense. | 7 | 28 | 43 | 19 | *130* |
| I apply new mathematics concepts to real-life problems. | 34 | 45 | 16 | | *14* |
| I take time to discuss my mathematics assignments with my classmates. | 32 | 42 | 20 | 4 | *24* |
| I look for more than one way to solve mathematics problems. | 17 | 42 | 29 | 9 | *63* |

| How often do you complete your mathematics homework? | Percentage of Students* | Number of students |
|---|---|---|
| I am not usually assigned any mathematics homework | 22 | *145* |
| Never or almost never | 6 | *37* |
| Sometimes | 25 | *169* |
| Often | 23 | *151* |
| Always | 17 | *115* |

* 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, 2018–2019, Applied Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *671*)

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"* |
|---|---|---|---|---|---|
| I read by myself. | 33 | 31 | 20 | 13 | *87* |
| I use the Internet. | 5 | | | 91 | *609* |
| I play video games. | 20 | 16 | 23 | 38 | *255* |
| I participate in sports or other physical activities. | 15 | 17 | 29 | 36 | *243* |
| I participate in art, music or drama activities. | 43 | 17 | 19 | 18 | *121* |
| I participate in other clubs or organizations. | 54 | 18 | 15 | 8 | *55* |
| I volunteer in my community. | 39 | 35 | 16 | 6 | *37* |
| I work at a paid job. | 63 | 10 | 17 | 7 | *46* |

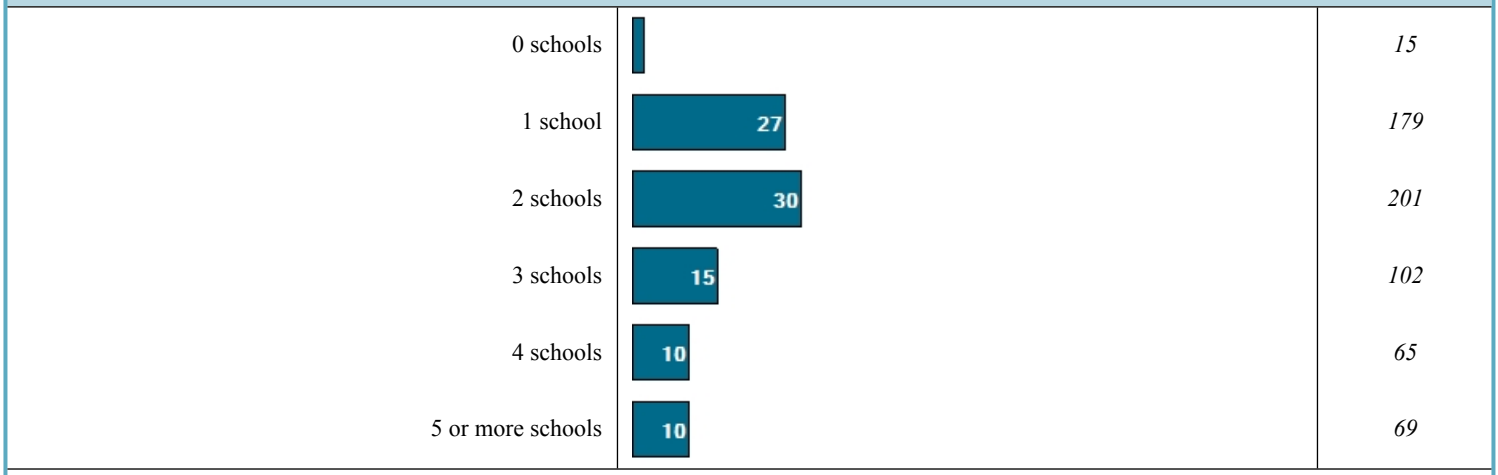
* Percentages may not add up to 100, due to rounding or to missing responses. Where there is no number in a bar, the percentage of responses is smaller than four.

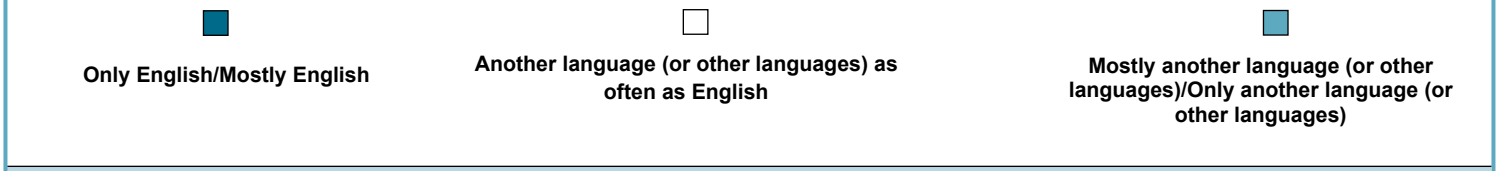
# Grade 9 Assessment of Mathematics, 2018–2019, Applied Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *671*)

### SCHOOLS ATTENDED

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




### LANGUAGES SPOKEN


* 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, 2018–2019, Applied Course

**STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *671*)**

### 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 | 45 | 299 |
| No | | 5 |
| Don't know | 48 | 324 |
| | *Total number of students* | *299* |

| Were you told how much the Grade 9 Assessment of Mathematics will count as part of your class mark (e.g., 5%)?† | Percentage of Students* | Number of students |
|---|---|---|
| Yes | 90 | 270 |
| No | 9 | 28 |
| | *Total number of students* | *299* |

| 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 | 78 | 232 |
| No | 11 | 32 |
| Undecided | 12 | 35 |

* 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, 2018–2019, Applied Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 671) | Female* (# = 313) | Male* (# = 358) | All Students (# = 28 618) | Female* (# = 12 493) | Male* (# = 16 121) |
| **STUDENTS' ATTITUDES TOWARD MATHEMATICS** | | | | | | |
| Percentage of students indicating they "agree" or "strongly agree" with the following statements:† | | | | | | |
| I like mathematics. | **41%** | 36% | 45% | **35%** | 29% | 40% |
| I am good at mathematics. | **39%** | 31% | 45% | **32%** | 25% | 38% |
| I am able to answer difficult mathematics questions. | **28%** | 15% | 38% | **25%** | 16% | 32% |
| Mathematics is one of my favourite subjects. | **28%** | 25% | 30% | **22%** | 18% | 24% |
| I understand most of the mathematics I am taught. | **68%** | 65% | 72% | **59%** | 55% | 63% |
| Mathematics is an easy subject. | **19%** | 16% | 22% | **17%** | 12% | 21% |
| I do my best in mathematics class. | **71%** | 72% | 70% | **69%** | 74% | 66% |
| The mathematics I learn now is useful for everyday life. | **29%** | 28% | 30% | **30%** | 28% | 32% |
| The mathematics I learn now helps me do work in other subjects. | **45%** | 45% | 45% | **45%** | 44% | 46% |
| I need to do well in mathematics to study what I want later. | **46%** | 45% | 47% | **49%** | 46% | 51% |
| I need to keep taking mathematics for the kind of job I want after I leave school. | **39%** | 38% | 40% | **40%** | 38% | 42% |
| 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) | **43%** | 34% | 51% | **41%** | 33% | 47% |
| algebra (e.g., solving equations, simplifying expressions with polynomials) | **46%** | 44% | 47% | **43%** | 40% | 45% |
| linear relations (e.g., scatter plots, lines of best fit) | **59%** | 48% | 69% | **56%** | 50% | 60% |
| measurement (e.g., perimeter, area, volume) | **69%** | 61% | 76% | **64%** | 60% | 68% |
| geometry (e.g., angles, parallel lines) | **51%** | 42% | 58% | **47%** | 40% | 53% |

* 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, 2018–2019, Applied Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 671) | Female* (# = 313) | Male* (# = 358) | All Students (# = 28 618) | Female* (# = 12 493) | Male* (# = 16 121) |
| **DOING MATHEMATICS** | | | | | | |
| Percentage of students indicating they do the following “very often” when studying mathematics or working on a mathematics problem:† | | | | | | |
| I connect new mathematics concepts to what I already know about mathematics or other subjects. | **5%** | 3% | 6% | **4%** | 4% | 4% |
| I check my mathematics answers to see if they make sense. | **19%** | 20% | 19% | **17%** | 19% | 16% |
| I apply new mathematics concepts to real-life problems. | **2%** | 2% | 2% | **3%** | 3% | 4% |
| I take time to discuss my mathematics assignments with my classmates. | **4%** | 3% | 4% | **5%** | 6% | 4% |
| I look for more than one way to solve mathematics problems. | **9%** | 7% | 11% | **10%** | 10% | 11% |
| Percentage of students indicating they complete their mathematics homework at the following frequencies:‡ | | | | | | |
| I am not usually assigned any mathematics homework | **22%** | 24% | 19% | **13%** | 13% | 14% |
| Never or almost never | **6%** | 6% | 5% | **8%** | 6% | 10% |
| Sometimes | **25%** | 23% | 27% | **27%** | 25% | 29% |
| Often | **23%** | 22% | 23% | **28%** | 29% | 27% |
| Always | **17%** | 18% | 16% | **16%** | 19% | 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, 2018–2019, Applied Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 671) | Female* (# = 313) | Male* (# = 358) | All Students (# = 28 618) | Female* (# = 12 493) | Male* (# = 16 121) |
| **OUT-OF-SCHOOL ACTIVITIES** | | | | | | |
| Percentage of students indicating they do the following "every day or almost every day" when they are not at school:† | | | | | | |
| I read by myself. | **13%** | 18% | 9% | **14%** | 20% | 10% |
| I use the Internet. | **91%** | 93% | 89% | **87%** | 89% | 86% |
| I play video games. | **38%** | 17% | 56% | **36%** | 14% | 53% |
| I participate in sports or other physical activities. | **36%** | 27% | 45% | **34%** | 25% | 42% |
| I participate in art, music or drama activities. | **18%** | 24% | 13% | **18%** | 25% | 13% |
| I participate in other clubs or organizations. | **8%** | 6% | 10% | **8%** | 7% | 9% |
| I volunteer in my community. | **6%** | 5% | 6% | **5%** | 5% | 5% |
| I work at a paid job. | **7%** | 5% | 8% | **7%** | 6% | 8% |
| **SCHOOLS ATTENDED** | | | | | | |
| 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%** | 2% | 3% | **2%** | 2% | 2% |
| 1 school | **27%** | 28% | 26% | **26%** | 24% | 27% |
| 2 schools | **30%** | 27% | 32% | **29%** | 29% | 29% |
| 3 schools | **15%** | 16% | 15% | **18%** | 18% | 18% |
| 4 schools | **10%** | 10% | 10% | **10%** | 11% | 10% |
| 5 or more schools | **10%** | 14% | 7% | **11%** | 12% | 9% |
| **LANGUAGES SPOKEN** | | | | | | |
| Percentage of students indicating that they speak the following languages at home:‡ | | | | | | |
| Only English/Mostly English | **78%** | 81% | 74% | **75%** | 75% | 75% |
| Another language (or other languages) as often as English | **11%** | 10% | 11% | **13%** | 14% | 12% |
| Mostly another language (or other languages)/ Only another language (or other languages) | **6%** | 5% | 6% | **7%** | 7% | 7% |
| Percentage of students indicating the languages people speak to them at home:‡ | | | | | | |
| Only English/Mostly English | **74%** | 78% | 70% | **70%** | 70% | 71% |
| Another language (or other languages) as often as English | **9%** | 10% | 8% | **11%** | 12% | 10% |
| Mostly another language (or other languages)/ Only another language (or other languages) | **8%** | 5% | 10% | **11%** | 11% | 11% |

* 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, 2018–2019, Applied Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 671) | Female* (# = 313) | Male* (# = 358) | All Students (# = 28 618) | Female* (# = 12 493) | Male* (# = 16 121) |
| **USE OF THE ASSESSMENT IN CLASS MARKS** | | | | | | |
| Percentage of students indicating their teacher will count some or all parts of the Grade 9 Assessment of Mathematics as part of their class mark:† | | | | | | |
| Yes | **45%** | 49% | 41% | **43%** | 47% | 40% |
| No | **1%** | <1% | 1% | **1%** | 1% | 1% |
| Don't know | **48%** | 47% | 49% | **51%** | 48% | 53% |
| Percentage of students indicating they were told how much the Grade 9 Assessment of Mathematics will count as part of their class mark:†‡ | | | | | | |
| | All Students (#=299) | Female* (#=152) | Male* (#=147) | All Students (#=12 310) | Female* (#=5 814) | Male* (#=6 496) |
| Yes | **90%** | 92% | 88% | **89%** | 90% | 88% |
| No | **9%** | 8% | 11% | **10%** | 9% | 11% |
| 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 (#=299) | Female* (#=152) | Male* (#=147) | All Students (#=12 310) | Female* (#=5 814) | Male* (#=6 496) |
| Yes | **78%** | 79% | 76% | **76%** | 78% | 75% |
| No | **11%** | 9% | 13% | **9%** | 7% | 11% |
| Undecided | **12%** | 12% | 11% | **14%** | 15% | 14% |

* 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, 2018–2019, Academic Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *1 591*)

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 | 24 | 61 | *970* |
| I am good at mathematics. | 13 | 26 | 59 | *942* |
| I am able to answer difficult mathematics questions. | 14 | 34 | 52 | *821* |
| Mathematics is one of my favourite subjects. | 35 | 19 | 45 | *709* |
| I understand most of the mathematics I am taught. | 6 | 14 | 79 | *1 254* |
| Mathematics is an easy subject. | 29 | 39 | 30 | *476* |
| I do my best in mathematics class. | 9 | 16 | 73 | *1 167* |
| The mathematics I learn now is useful for everyday life. | 37 | 32 | 30 | *471* |
| The mathematics I learn now helps me do work in other subjects. | 19 | 22 | 57 | *906* |
| I need to do well in mathematics to study what I want later. | 13 | 23 | 62 | *990* |
| I need to keep taking mathematics for the kind of job I want after I leave school. | 16 | 26 | 56 | *894* |

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) | 27 | 44 | 24 | *378* |
| algebra (e.g., solving equations, simplifying expressions with polynomials) | 5 | 21 | 39 | 31 | *501* |
| linear relations (e.g., scatter plots, lines of best fit) | 6 | 30 | 40 | 19 | *310* |
| analytic geometry (e.g., slope, y-intercept, equations of lines) | 9 | 25 | 38 | 24 | *384* |
| measurement (e.g., perimeter, area, volume) | 17 | 40 | 37 | *595* |
| geometry (e.g., angles, parallel lines) | 4 | 22 | 37 | 34 | *535* |

* 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, 2018–2019, Academic Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *1 591*)

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" |
|---|---|---|---|---|---|
| | Never or almost never | Sometimes | Often | Very Often | |
| I connect new mathematics concepts to what I already know about mathematics or other subjects. | 7 | 46 | 32 | 10 | *163* |
| I check my mathematics answers to see if they make sense. | | 19 | 46 | 28 | *449* |
| I apply new mathematics concepts to real-life problems. | 28 | 44 | 18 | 5 | *73* |
| I take time to discuss my mathematics assignments with my classmates. | 22 | 42 | 23 | 9 | *138* |
| I look for more than one way to solve mathematics problems. | 12 | 41 | 32 | 11 | *173* |

| How often do you complete your mathematics homework? | Percentage of Students* | Number of students |
|---|---|---|
| I am not usually assigned any mathematics homework | | *14* |
| Never or almost never | 5 | *78* |
| Sometimes | 20 | *312* |
| Often | 38 | *607* |
| Always | 30 | *473* |

* 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, 2018–2019, Academic Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *1 591*)

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"* |
|---|---|---|---|---|---|
| | Never | 1 or 2 times a month | 1 to 3 times a week | Every day or almost every day | |
| I read by myself. | 23 | 30 | 24 | 17 | *264* |
| I use the Internet. | 5 | | | 89 | *1 413* |
| I play video games. | 19 | 20 | 24 | 31 | *496* |
| I participate in sports or other physical activities. | 10 | 13 | 31 | 40 | *637* |
| I participate in art, music or drama activities. | 41 | 17 | 16 | 19 | *310* |
| I participate in other clubs or organizations. | 37 | 22 | 24 | 12 | *183* |
| I volunteer in my community. | 26 | 48 | 17 | | *53* |
| I work at a paid job. | 64 | 10 | 16 | 4 | *56* |

* 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, 2018–2019, Academic Course

## STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *1 591*)

### 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 |
|---|---|---|
| 0 schools | | *9* |
| 1 school | 36 | *579* |
| 2 schools | 29 | *461* |
| 3 schools | 13 | *203* |
| 4 schools | 7 | *119* |
| 5 or more schools | 7 | *109* |

**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" |
|---|---|---|
| Languages student speaks at home | 71 15 7 | *1 136* |
| Languages in which people speak to student at home | 65 12 14 | *1 042* |

* 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, 2018–2019, Academic Course

**STUDENT QUESTIONNAIRE RESULTS FOR THIS BOARD (# = *1 591*)**

### 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 | 71 | *1 125* |
| No | | *6* |
| Don't know | 21 | *337* |
| | ***Total number of students*** | ***1 125*** |

| Were you told how much the Grade 9 Assessment of Mathematics will count as part of your class mark (e.g., 5%)?† | Percentage of Students* | Number of students |
|---|---|---|
| Yes | 95 | *1 069* |
| No | 4 | *50* |
| | ***Total number of students*** | ***1 125*** |

| 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 | 81 | *914* |
| No | 8 | *87* |
| Undecided | 10 | *118* |

* 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, 2018–2019, Academic Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 1 591) | Female* (# = 806) | Male* (# = 785) | All Students (# = 91 396) | Female* (# = 47 009) | Male* (# = 44 386) |
| **STUDENTS' ATTITUDES TOWARD MATHEMATICS** | | | | | | |
| Percentage of students indicating they "agree" or "strongly agree" with the following statements:† | | | | | | |
| I like mathematics. | **61%** | 58% | 64% | **57%** | 52% | 63% |
| I am good at mathematics. | **59%** | 54% | 65% | **54%** | 48% | 60% |
| I am able to answer difficult mathematics questions. | **52%** | 43% | 60% | **49%** | 41% | 58% |
| Mathematics is one of my favourite subjects. | **45%** | 42% | 48% | **41%** | 36% | 47% |
| I understand most of the mathematics I am taught. | **79%** | 78% | 80% | **75%** | 72% | 77% |
| Mathematics is an easy subject. | **30%** | 26% | 34% | **29%** | 24% | 35% |
| I do my best in mathematics class. | **73%** | 75% | 71% | **73%** | 77% | 69% |
| The mathematics I learn now is useful for everyday life. | **30%** | 30% | 30% | **28%** | 26% | 31% |
| The mathematics I learn now helps me do work in other subjects. | **57%** | 57% | 57% | **56%** | 54% | 57% |
| I need to do well in mathematics to study what I want later. | **62%** | 59% | 65% | **63%** | 61% | 65% |
| I need to keep taking mathematics for the kind of job I want after I leave school. | **56%** | 54% | 59% | **57%** | 55% | 59% |
| 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) | **68%** | 61% | 74% | **68%** | 61% | 75% |
| algebra (e.g., solving equations, simplifying expressions with polynomials) | **70%** | 68% | 72% | **70%** | 68% | 72% |
| linear relations (e.g., scatter plots, lines of best fit) | **60%** | 55% | 65% | **61%** | 55% | 67% |
| analytic geometry (e.g., slope, y-intercept, equations of lines) | **62%** | 59% | 65% | **62%** | 58% | 66% |
| measurement (e.g., perimeter, area, volume) | **77%** | 74% | 81% | **77%** | 73% | 82% |
| geometry (e.g., angles, parallel lines) | **71%** | 69% | 72% | **70%** | 66% | 75% |

* 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, 2018–2019, Academic Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 1 591) | Female* (# = 806) | Male* (# = 785) | All Students (# = 91 396) | Female* (# = 47 009) | Male* (# = 44 386) |
| **DOING MATHEMATICS** | | | | | | |
| Percentage of students indicating they do the following "very often" when studying mathematics or working on a mathematics problem:† | | | | | | |
| I connect new mathematics concepts to what I already know about mathematics or other subjects. | **10%** | 11% | 10% | **12%** | 12% | 12% |
| I check my mathematics answers to see if they make sense. | **28%** | 30% | 26% | **32%** | 35% | 29% |
| I apply new mathematics concepts to real-life problems. | **5%** | 4% | 6% | **5%** | 4% | 6% |
| I take time to discuss my mathematics assignments with my classmates. | **9%** | 10% | 7% | **12%** | 13% | 11% |
| I look for more than one way to solve mathematics problems. | **11%** | 10% | 12% | **13%** | 12% | 14% |
| Percentage of students indicating they complete their mathematics homework at the following frequencies:‡ | | | | | | |
| I am not usually assigned any mathematics homework | **1%** | <1% | 1% | **2%** | 2% | 2% |
| Never or almost never | **5%** | 3% | 7% | **6%** | 3% | 8% |
| Sometimes | **20%** | 16% | 24% | **22%** | 18% | 26% |
| Often | **38%** | 38% | 38% | **36%** | 36% | 36% |
| Always | **30%** | 36% | 23% | **29%** | 35% | 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, 2018–2019, Academic Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 1 591) | Female* (# = 806) | Male* (# = 785) | All Students (# = 91 396) | Female* (# = 47 009) | Male* (# = 44 386) |
| **OUT-OF-SCHOOL ACTIVITIES** | | | | | | |
| Percentage of students indicating they do the following "every day or almost every day" when they are not at school:† | | | | | | |
| I read by myself. | **17%** | 22% | 11% | **18%** | 23% | 13% |
| I use the Internet. | **89%** | 91% | 87% | **92%** | 93% | 92% |
| I play video games. | **31%** | 10% | 53% | **27%** | 9% | 47% |
| I participate in sports or other physical activities. | **40%** | 34% | 46% | **41%** | 33% | 48% |
| I participate in art, music or drama activities. | **19%** | 25% | 14% | **20%** | 25% | 14% |
| I participate in other clubs or organizations. | **12%** | 11% | 12% | **12%** | 11% | 13% |
| I volunteer in my community. | **3%** | 4% | 3% | **4%** | 4% | 4% |
| I work at a paid job. | **4%** | 3% | 4% | **4%** | 4% | 4% |
| **SCHOOLS ATTENDED** | | | | | | |
| 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%** | <1% | 1% | **<1%** | <1% | 1% |
| 1 school | **36%** | 36% | 37% | **26%** | 26% | 26% |
| 2 schools | **29%** | 29% | 29% | **33%** | 33% | 33% |
| 3 schools | **13%** | 13% | 13% | **19%** | 20% | 19% |
| 4 schools | **7%** | 7% | 8% | **9%** | 9% | 9% |
| 5 or more schools | **7%** | 9% | 5% | **7%** | 8% | 7% |
| **LANGUAGES SPOKEN** | | | | | | |
| Percentage of students indicating that they speak the following languages at home:‡ | | | | | | |
| Only English/Mostly English | **71%** | 72% | 71% | **69%** | 69% | 68% |
| Another language (or other languages) as often as English | **15%** | 15% | 14% | **18%** | 18% | 17% |
| Mostly another language (or other languages)/ Only another language (or other languages) | **7%** | 7% | 6% | **9%** | 8% | 10% |
| Percentage of students indicating the languages people speak to them at home:‡ | | | | | | |
| Only English/Mostly English | **65%** | 66% | 65% | **61%** | 61% | 60% |
| Another language (or other languages) as often as English | **12%** | 12% | 11% | **16%** | 16% | 15% |
| Mostly another language (or other languages)/ Only another language (or other languages) | **14%** | 15% | 13% | **18%** | 17% | 18% |

* 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, 2018–2019, Academic Course

| STUDENT QUESTIONNAIRE RESULTS FOR BOARD AND PROVINCE (all students, female, male) | Board | | | Province | | |
|---|---|---|---|---|---|---|
| | All Students (# = 1 591) | Female* (# = 806) | Male* (# = 785) | All Students (# = 91 396) | Female* (# = 47 009) | Male* (# = 44 386) |
| **USE OF THE ASSESSMENT IN CLASS MARKS** | | | | | | |
| Percentage of students indicating their teacher will count some or all parts of the Grade 9 Assessment of Mathematics as part of their class mark:† | | | | | | |
| Yes | **71%** | 75% | 66% | **68%** | 71% | 64% |
| No | **<1%** | <1% | 1% | **1%** | 1% | 1% |
| Don't know | **21%** | 18% | 24% | **27%** | 24% | 30% |
| Percentage of students indicating they were told how much the Grade 9 Assessment of Mathematics will count as part of their class mark:†‡ | | | | | | |
| | All Students (#=1 125) | Female* (#=604) | Male* (#=521) | All Students (#=62 124) | Female* (#=33 563) | Male* (#=28 560) |
| Yes | **95%** | 95% | 96% | **95%** | 95% | 95% |
| No | **4%** | 5% | 4% | **5%** | 5% | 5% |
| 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 (#=1 125) | Female* (#=604) | Male* (#=521) | All Students (#=62 124) | Female* (#=33 563) | Male* (#=28 560) |
| Yes | **81%** | 82% | 81% | **79%** | 81% | 77% |
| No | **8%** | 6% | 10% | **9%** | 7% | 12% |
| Undecided | **10%** | 11% | 9% | **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, 2018–2019

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