

# 2018 NSSME+

## Mathematics Teacher Questionnaire

### Teacher Background and Opinions

1. How many years have you taught prior to this school year: [Enter each response as a whole number (for example: 15).]

a.	any subject at the K–12 level?	
b.	mathematics at the K–12 level?	
c.	at this school, any subject?	

2. At what grade levels do you currently teach mathematics? [Select all that apply.]

<input type="checkbox"/>	K–5
<input type="checkbox"/>	6–8
<input type="checkbox"/>	9–12
<input type="checkbox"/>	I do not currently teach mathematics.

3. *[Presented to self-contained teachers only]*

Which best describes the mathematics instruction provided to the entire class?

- Do not consider pull-out instruction that some students may receive for remediation or enrichment.
- Do not consider instruction provided to individual or small groups of students, for example by an English-language specialist, special educator, or teacher assistant.

<input type="radio"/>	This class receives mathematics instruction only from you. <i>[Presented only to teachers who answered in Q2 that they teach mathematics]</i>
<input type="radio"/>	This class receives mathematics instruction from you and other teachers (for example: a mathematics specialist or a teacher you team with). <i>[Presented only to teachers who answered in Q2 that they teach mathematics]</i>
<input type="radio"/>	This class receives mathematics instruction only from another teacher (for example: a mathematics specialist or a teacher you team with). <i>[Presented only to teachers who answered in Q2 that they do not currently teach mathematics]</i> <i>[Teacher ineligible, exit survey]</i>
<input type="radio"/>	This class does not receive mathematics instruction this year. <i>[Presented only to teachers who answered in Q2 that they do not currently teach mathematics]</i> <i>[Teacher ineligible, exit survey]</i>

4. Omitted – Used only for survey routing.

5. *[Presented to self-contained teachers only]*

Which best describes your mathematics teaching?

<input type="radio"/>	I teach mathematics all or most days, every week of the year.
<input type="radio"/>	I teach mathematics every week, but typically three or fewer days each week.
<input type="radio"/>	I teach mathematics some weeks, but typically not every week.

6. *[Presented to self-contained teachers only]*

Which best describes your science teaching?

<input type="radio"/>	I teach science all or most days, every week of the year.
<input type="radio"/>	I teach science every week, but typically three or fewer days each week.
<input type="radio"/>	I teach science some weeks, but typically not every week. <i>[Skip to Q8]</i>
<input type="radio"/>	I do not teach science.

7. *[Presented to self-contained teachers only]*

In a typical week, how many days do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 5, 150).]

	NUMBER OF DAYS PER WEEK	TOTAL NUMBER OF MINUTES PER WEEK
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

8. *[Presented to self-contained teachers who skipped Q7 only]*

In a typical year, how many weeks do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 36, 150).]

	NUMBER OF WEEKS PER YEAR	AVERAGE NUMBER OF MINUTES PER WEEK WHEN TAUGHT
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

9. *[Presented to non-self-contained teachers only]*

In a typical week, how many different mathematics classes (sections) are you currently teaching?

- If you meet with the *same class of students* multiple times per week, count that class only once.
- If you teach the *same mathematics course* to multiple classes of students, count each class separately.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**10. [Presented to non-self-contained teachers only]**

For each mathematics class you currently teach, select the course type and enter the number of students enrolled. Enter the classes in the order that you teach them. For teachers on an alternating day block schedule, please order your classes starting with the first class you teach this week. Select one course type on each row and enter the number of students as a whole number (for example: 25).]

GRADES 9–12 COURSE TYPE	EXAMPLE COURSES
<b>Non-college prep mathematics courses</b>	Developmental Math; High School Arithmetic; Remedial Math; General Math; Vocational Math; Consumer Math; Basic Math; Business Math; Career Math; Practical Math; Essential Math; Pre-Algebra; Introductory Algebra; Algebra 1 Part 1; Algebra 1A; Math A; Basic Geometry; Informal Geometry; Practical Geometry
<b>Formal/College prep mathematics level 1 courses</b>	Algebra 1; Math 1; Integrated/Unified Math I; Algebra 1 Part 2; Algebra 1B; Math B
<b>Formal/College prep mathematics level 2 courses</b>	Geometry; Plane Geometry; Solid Geometry; Math 2; Integrated/Unified Math II; Math C
<b>Formal/College prep mathematics level 3 courses</b>	Algebra 2; Intermediate Algebra; Algebra and Trigonometry; Advanced Algebra; Math 3; Integrated/Unified Math III
<b>Formal/College prep mathematics level 4 courses</b>	Algebra 3; Trigonometry; Pre-Calculus; Analytic/Advanced Geometry; Elementary Functions; Integrated Math 4; Unified Math IV; Calculus (not including college level/AP); any other college prep senior math with Algebra 2/Math 3 as a prerequisite
<b>Mathematics courses that might qualify for college credit</b>	Advanced Placement Calculus (AB, BC); Advanced Placement Statistics; IB Mathematics Standard Level; IB Mathematics Higher Level; concurrent college and high school credit/dual enrollment

CLASS	COURSE TYPE	NUMBER OF STUDENTS ENROLLED
Your 1 <sup>st</sup> mathematics class:		
Your 2 <sup>nd</sup> mathematics class:		
...		
Your 10 <sup>th</sup> mathematics class:		

COURSE TYPE LIST	
1	Mathematics (Grades K-5)
2	Remedial Mathematics 6
3	Regular Mathematics 6
4	Accelerated/Pre-Algebra Mathematics 6
5	Remedial Mathematics 7
6	Regular Mathematics 7
7	Accelerated Mathematics 7
8	Remedial Mathematics 8
9	Regular Mathematics 8
10	Accelerated Mathematics 8
11	Algebra 1, Grade 7 or 8
12	Non-college prep mathematics course (Grades 9-12)
13	Formal/College prep mathematics level 1 course (Grades 9-12)
14	Formal/College prep mathematics level 2 course (Grades 9-12)
15	Formal/College prep mathematics level 3 course (Grades 9-12)
16	Formal/College prep mathematics level 4 course (Grades 9-12)
17	Mathematics course that might qualify for college credit (Grades 9-12)

**11. [Presented to non-self-contained teachers only]**

Later in this questionnaire, we will ask you questions about your  $[[x^{th}]]$  mathematics class, which you indicated was  $[[type\ indicated\ in\ Q10]]$ . What is your school's title for this course? \_\_\_\_\_

- 12.** Have you been awarded one or more bachelor's and/or graduate degrees in the following fields? (With regard to bachelor's degrees, count only areas in which you majored. Do not include endorsements or certificates.) [Select one on each row.]

	YES	NO
a. Education (general or subject specific such as mathematics education)	<input type="radio"/>	<input type="radio"/>
b. Mathematics	<input type="radio"/>	<input type="radio"/>
c. Statistics	<input type="radio"/>	<input type="radio"/>
d. Computer Science	<input type="radio"/>	<input type="radio"/>
e. Engineering	<input type="radio"/>	<input type="radio"/>
f. Other, please specify. _____	<input type="radio"/>	<input type="radio"/>

**13. [Presented only to teachers that selected "Yes" for Q12a]**

What type of education degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

<input type="checkbox"/>	Elementary Education
<input type="checkbox"/>	Mathematics Education
<input type="checkbox"/>	Science Education
<input type="checkbox"/>	Other education, please specify. _____

14. Did you complete any of the following mathematics courses at the undergraduate or graduate level? [Select one on each row.]

	YES	NO
a. Mathematics content for elementary school teachers	<input type="radio"/>	<input type="radio"/>
b. Mathematics content for middle school teachers	<input type="radio"/>	<input type="radio"/>
c. Mathematics content for high school teachers	<input type="radio"/>	<input type="radio"/>
d. Integrated mathematics (a single course that addresses content across <b>multiple</b> mathematics subjects, such as algebra and geometry)	<input type="radio"/>	<input type="radio"/>
e. College algebra/trigonometry/functions	<input type="radio"/>	<input type="radio"/>
f. Abstract algebra (for example: groups, rings, ideals, fields) <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
g. Linear algebra (for example: vectors, matrices, eigenvalues) <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
h. Calculus	<input type="radio"/>	<input type="radio"/>
i. Advanced calculus <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
j. Real analysis <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
k. Differential equations <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
l. Analytic/Coordinate Geometry (for example: transformations or isometries, conic sections) <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
m. Axiomatic Geometry (Euclidean or non-Euclidean) <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
n. College geometry <i>[Presented to grades K–5 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
o. Probability	<input type="radio"/>	<input type="radio"/>
p. Statistics	<input type="radio"/>	<input type="radio"/>
q. Number theory (for example: divisibility theorems, properties of prime numbers) <i>[Presented to grades 6–12 teachers only]</i>	<input type="radio"/>	<input type="radio"/>
r. Discrete mathematics (for example: combinatorics, graph theory, game theory)	<input type="radio"/>	<input type="radio"/>
s. Other upper division mathematics	<input type="radio"/>	<input type="radio"/>

15. Did you complete one or more courses in each of the following areas at the undergraduate or graduate level? [Select one on each row.]

	YES	NO
a. Computer science	<input type="radio"/>	<input type="radio"/>
b. Engineering	<input type="radio"/>	<input type="radio"/>

16. Which of the following best describes the program you completed to earn your teaching credential (sometimes called certification or license)?

<input type="radio"/>	An undergraduate program leading to a bachelor's degree and a teaching credential
<input type="radio"/>	A post-baccalaureate credentialing program (no master's degree awarded)
<input type="radio"/>	A master's program that also led to a teaching credential
<input type="radio"/>	I have not completed a program to earn a teaching credential.

17. After completing your undergraduate degree and prior to becoming a teacher, did you have a full-time job in a mathematics-related field (for example: accounting, engineering, computer programming)?

<input type="radio"/>	Yes
<input type="radio"/>	No

## Professional Development

The questions in this section ask about your participation in professional development focused on mathematics or mathematics teaching. When answering these questions, please include:

- face-to-face and/or online courses;
- professional meetings/conferences;
- workshops;
- professional learning communities/lesson studies/teacher study groups; and
- coaching and mentoring.

Do not include:

- courses you took prior to becoming a teacher; and
- time spent providing professional development (including coaching and mentoring) for other teachers.

**18.** When did you **last participate** in professional development focused on mathematics or mathematics teaching?

<input type="radio"/>	In the last 12 months
<input type="radio"/>	1–3 years ago
<input type="radio"/>	4–6 years ago
<input type="radio"/>	7–10 years ago
<input type="radio"/>	More than 10 years ago
<input type="radio"/>	Never

} Skip to Q23

**19.** In the last 3 years, which of the following types of professional development related to mathematics or mathematics teaching have you had? [Select one on each row.]

	YES	NO
a. I attended a professional development program/workshop.	<input type="radio"/>	<input type="radio"/>
b. I attended a national, state, or regional mathematics teacher association meeting.	<input type="radio"/>	<input type="radio"/>
c. I completed an online course/webinar.	<input type="radio"/>	<input type="radio"/>
d. I participated in a professional learning community/lesson study/teacher study group.	<input type="radio"/>	<input type="radio"/>
e. I received assistance or feedback from a formally designated coach/mentor.	<input type="radio"/>	<input type="radio"/>
f. I took a formal course for college credit.	<input type="radio"/>	<input type="radio"/>

**20.** What is the **total** amount of time you have spent on professional development related to mathematics or mathematics teaching **in the last 3 years**?

<input type="radio"/>	Less than 6 hours
<input type="radio"/>	6–15 hours
<input type="radio"/>	16–35 hours
<input type="radio"/>	36–80 hours
<input type="radio"/>	More than 80 hours

**21. Considering all of your mathematics-related professional development in the last 3 years, to what extent does each of the following describe your experiences? [Select one on each row.]**

	NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a. I had opportunities to engage in mathematics investigations.	①	②	③	④	⑤
b. I had opportunities to experience lessons, as my students would, from the textbook/units I use in my classroom.	①	②	③	④	⑤
c. I had opportunities to examine classroom artifacts (for example: student work samples, videos of classroom instruction).	①	②	③	④	⑤
d. I had opportunities to rehearse instructional practices during the professional development (meaning: try out, receive feedback, and reflect on those practices).	①	②	③	④	⑤
e. I had opportunities to apply what I learned to my classroom and then come back and talk about it as part of the professional development.	①	②	③	④	⑤
f. I worked closely with other teachers from my school.	①	②	③	④	⑤
g. I worked closely with other teachers who taught the same grade and/or subject whether or not they were from my school.	①	②	③	④	⑤

**22. Thinking about all of your mathematics-related professional development in the last 3 years, to what extent was each of the following emphasized? [Select one on each row.]**

	NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a. Deepening your own mathematics content knowledge	①	②	③	④	⑤
b. Deepening your understanding of how mathematics is done (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models)	①	②	③	④	⑤
c. Implementing the mathematics textbook to be used in your classroom	①	②	③	④	⑤
d. Learning how to use hands-on activities/manipulatives for mathematics instruction	①	②	③	④	⑤
e. Learning about difficulties that students may have with particular mathematical ideas and procedures	①	②	③	④	⑤
f. Finding out what students think or already know prior to instruction on a topic	①	②	③	④	⑤
g. Monitoring student understanding during mathematics instruction	①	②	③	④	⑤
h. Differentiating mathematics instruction to meet the needs of diverse learners	①	②	③	④	⑤
i. Incorporating students' cultural backgrounds into mathematics instruction	①	②	③	④	⑤
j. Learning how to provide mathematics instruction that integrates engineering, science, and/or computer science	①	②	③	④	⑤

## Preparedness to Teach Mathematics

### 23. *[Presented to self-contained teachers only]*

Many teachers feel better prepared to teach some subject areas than others. How well prepared do you feel to teach each of the following subjects **at the grade level(s) you teach**, whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Number and Operations	①	②	③	④
b. Early Algebra	①	②	③	④
c. Geometry	①	②	③	④
d. Measurement and Data Representation	①	②	③	④
e. Science	①	②	③	④
f. Computer science/Programming	①	②	③	④
g. Reading/Language Arts	①	②	③	④
h. Social Studies	①	②	③	④

### 24. *[Presented to non-self-contained teachers only]*

Within mathematics, many teachers feel better prepared to teach some topics than others. How prepared do you feel to teach each of the following topics **at the grade level(s) you teach**, whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. The number system and operations	①	②	③	④
b. Algebraic thinking	①	②	③	④
c. Functions	①	②	③	④
d. Modeling	①	②	③	④
e. Measurement	①	②	③	④
f. Geometry	①	②	③	④
g. Statistics and probability	①	②	③	④
h. Discrete mathematics	①	②	③	④
i. Computer science/programming	①	②	③	④



**25.** How well prepared do you feel to do each of the following in your mathematics instruction?  
 [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Develop students' conceptual understanding of the mathematical ideas you teach	①	②	③	④
b. Develop students' abilities to do mathematics (for example: consider how to approach a problem, explain and justify solutions, create and use mathematical models)	①	②	③	④
c. Develop students' awareness of STEM careers	①	②	③	④
d. Provide mathematics instruction that is based on students' ideas (whether completely correct or not) about the topics you teach	①	②	③	④
e. Use formative assessment to monitor student learning	①	②	③	④
f. Differentiate mathematics instruction to meet the needs of diverse learners	①	②	③	④
g. Incorporate students' cultural backgrounds into mathematics instruction	①	②	③	④
h. Encourage students' interest in mathematics	①	②	③	④
i. Encourage participation of all students in mathematics	①	②	③	④

## Opinions about Mathematics Instruction

26. Please provide your opinion about each of the following statements. [Select one on each row.]

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
a. Students learn mathematics best in classes with students of similar abilities.	①	②	③	④	⑤
b. It is better for mathematics instruction to focus on ideas in depth, even if that means covering fewer topics.	①	②	③	④	⑤
c. At the beginning of instruction on a mathematical idea, students should be provided with definitions for new mathematics vocabulary that will be used.	①	②	③	④	⑤
d. Teachers should explain an idea to students before having them investigate the idea.	①	②	③	④	⑤
e. Most class periods should provide opportunities for students to share their thinking and reasoning.	①	②	③	④	⑤
f. Hands-on activities/manipulatives should be used primarily to reinforce a mathematical idea that the students have already learned.	①	②	③	④	⑤
g. Teachers should ask students to justify their mathematical thinking.	①	②	③	④	⑤
h. Students learn best when instruction is connected to their everyday lives.	①	②	③	④	⑤
i. Most class periods should provide opportunities for students to apply mathematical ideas to real-world contexts.	①	②	③	④	⑤
j. Students should learn mathematics by doing mathematics (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models).	①	②	③	④	⑤

## Leadership Experiences

27. In the last 3 years have you... [Select one on each row.]

	YES	NO
a. Served as a lead teacher or department chair in mathematics?	<input type="radio"/>	<input type="radio"/>
b. Served as a <i>formal</i> mentor or coach for a mathematics teacher? (Do not include supervision of student teachers.)	<input type="radio"/>	<input type="radio"/>
c. Supervised a student teacher in your classroom?	<input type="radio"/>	<input type="radio"/>
d. Served on a school or district/diocese-wide mathematics committee (for example: developing curriculum, developing pacing guides, selecting instructional materials)?	<input type="radio"/>	<input type="radio"/>
e. Led or co-led a workshop or professional learning community (for example: teacher study group, lesson study) for other teachers focused on mathematics or mathematics teaching?	<input type="radio"/>	<input type="radio"/>
f. Taught a mathematics lesson for other teachers in your school to observe?	<input type="radio"/>	<input type="radio"/>
g. Observed another teacher's mathematics lesson for the purpose of giving him/her feedback?	<input type="radio"/>	<input type="radio"/>

## Your Mathematics Instruction

The rest of this questionnaire is about your  $[[x^{th}]]$  mathematics class, which you indicated was *[[type indicated in Q10]]* and is titled *[[title provided in Q11]]*. *[Instructions presented to non-self-contained teachers only]*

The rest of this questionnaire is about your mathematics instruction in this class. *[Instructions presented to self-contained teachers only]*

### 28. *[Presented to non-self-contained teachers only]*

On average, how many minutes per week does this class meet? [Enter your response as a whole number (for example: 300).] \_\_\_\_\_

### 29. Enter the number of students for each grade represented in this class. [Enter each response as a whole number (for example: 15).]

Kindergarten	
1 <sup>st</sup> grade	
2 <sup>nd</sup> grade	
3 <sup>rd</sup> grade	
4 <sup>th</sup> grade	
5 <sup>th</sup> grade	
6 <sup>th</sup> grade	
7 <sup>th</sup> grade	
8 <sup>th</sup> grade	
9 <sup>th</sup> grade	
10 <sup>th</sup> grade	
11 <sup>th</sup> grade	
12 <sup>th</sup> grade	

### 30. For the *[[sum of Q29]]* students in this class, indicate the number of males and females in each of the following categories of race/ethnicity. [Enter each response as a whole number (for example: 15).]

	MALES	FEMALES
a. American Indian or Alaskan Native		
b. Asian		
c. Black or African American		
d. Hispanic or Latino		
e. Native Hawaiian or Other Pacific Islander		
f. White		
g. Two or more races		

### 31. Which of the following best describes the prior mathematics achievement levels of the students in this class relative to other students in this school?

<input type="radio"/> Mostly low achievers
<input type="radio"/> Mostly average achievers
<input type="radio"/> Mostly high achievers
<input type="radio"/> A mixture of levels

**32.** How much control do you have over each of the following for mathematics instruction in this class? [Select one on each row.]

	NO CONTROL		MODERATE CONTROL		STRONG CONTROL
a. Determining course goals and objectives	①	②	③	④	⑤
b. Selecting curriculum materials (for example: textbooks)	①	②	③	④	⑤
c. Selecting content, topics, and skills to be taught	①	②	③	④	⑤
d. Selecting the sequence in which topics are covered	①	②	③	④	⑤
e. Determining the amount of instructional time to spend on each topic	①	②	③	④	⑤
f. Selecting teaching techniques	①	②	③	④	⑤
g. Determining the amount of homework to be assigned	①	②	③	④	⑤
h. Choosing criteria for grading student performance	①	②	③	④	⑤

**33.** Think about your plans for this class for the entire course/year. By the end of the course/year, how much emphasis will each of the following student objectives receive? [Select one on each row.]

	NONE	MINIMAL EMPHASIS	MODERATE EMPHASIS	HEAVY EMPHASIS
a. Learning mathematics vocabulary	①	②	③	④
b. Learning mathematical procedures and/or algorithms	①	②	③	④
c. Learning to perform computations with speed and accuracy	①	②	③	④
d. Understanding mathematical ideas	①	②	③	④
e. Learning how to do mathematics (for example: consider how to approach a problem, explain and justify solutions, create and use mathematical models)	①	②	③	④
f. Learning about real-life applications of mathematics	①	②	③	④
g. Increasing students' interest in mathematics	①	②	③	④
h. Developing students' confidence that they can successfully pursue careers in mathematics	①	②	③	④
i. Learning test-taking skills/strategies	①	②	③	④

**34.** How often do **you** do each of the following in your mathematics instruction in this class?  
 [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL MATHEMATICS LESSONS
a. Explain mathematical ideas to the whole class	①	②	③	④	⑤
b. Engage the whole class in discussions	①	②	③	④	⑤
c. Have students work in small groups	①	②	③	④	⑤
d. Provide manipulatives for students to use in problem-solving/investigations	①	②	③	④	⑤
e. Use flipped instruction (have students watch lectures/demonstrations outside of class to prepare for in-class activities)	①	②	③	④	⑤
f. Have students read from a textbook or other material in class, either aloud or to themselves	①	②	③	④	⑤
g. Have students write their reflections (for example: in their journals, on exit tickets) in class or for homework	①	②	③	④	⑤
h. Focus on literacy skills (for example: informational reading or writing strategies)	①	②	③	④	⑤
i. Have students practice for standardized tests	①	②	③	④	⑤

**35.** How often do you have **students** do each of the following during mathematics instruction in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL MATHEMATICS LESSONS
a. Work on challenging problems that require thinking beyond just applying rules, algorithms, or procedures	①	②	③	④	⑤
b. Figure out what a challenging problem is asking (by talking with their classmates and/or using manipulatives, pictures, diagrams, tables, or equations)	①	②	③	④	⑤
c. Reflect on their solution strategies as they work through a mathematics problem and revise as needed	①	②	③	④	⑤
d. Continue working through a mathematics problem when they reach points of difficulty, challenge, or error	①	②	③	④	⑤
e. Determine whether their answer makes sense (for example: the answer has reasonable magnitude or sign, uses appropriate units, fits the context of the problem)	①	②	③	④	⑤
f. Represent aspects of a problem using mathematical symbols, pictures, diagrams, tables, or objects in order to solve it	①	②	③	④	⑤
g. Provide mathematical reasoning to explain, justify, or prove their thinking	①	②	③	④	⑤
h. Compare and contrast different solution strategies for a mathematics problem in terms of their strengths and limitations (for example: their efficiency, generalizability, interpretability by others)	①	②	③	④	⑤
i. Analyze the mathematical reasoning of others (for example: decide if their reasoning makes sense, identify correct ideas or flaws in their thinking)	①	②	③	④	⑤
j. Pose questions to clarify, challenge, or improve the mathematical reasoning of others	①	②	③	④	⑤

k.	Identify relevant information and relationships that could be used to solve a mathematics problem (for example: quantities and relationships needed to develop an equation that illustrates a situation or determines an outcome)	①	②	③	④	⑤
l.	Develop a mathematical model (meaning, a representation of relevant information and relationships such as an equation, tape diagram, algorithm, or function) to solve a mathematics problem	①	②	③	④	⑤
m.	Determine what tools (for example: pencil and paper, manipulatives, ruler, protractor, calculator, spreadsheet) are appropriate for solving a mathematics problem	①	②	③	④	⑤
n.	Determine what units are appropriate for expressing numerical answers, data, and/or measurements	①	②	③	④	⑤
o.	Discuss how certain terms or phrases may have specific meanings in mathematics that are different from their meaning in everyday language	①	②	③	④	⑤
p.	Identify patterns or characteristics of numbers, diagrams, or graphs that may be helpful in solving a mathematics problem	①	②	③	④	⑤
q.	Work on generating a rule or formula (for example: based on multiple problems, patterns, or repeated calculations)	①	②	③	④	⑤

**36.** Thinking about your instruction in this class over the entire year, about how often do you have students use coding to develop or revise computer programs as part of your mathematics instruction (for example: use Scratch or Python as part of doing mathematics)?

<input type="radio"/>	Never
<input type="radio"/>	Rarely (for example: A few times per year)
<input type="radio"/>	Sometimes (for example: Once or twice a month)
<input type="radio"/>	Often (for example: Once or twice a week)
<input type="radio"/>	All or almost all mathematics lessons

**37.** In a typical week, how much time outside of this class are students expected to spend on mathematics assignments?

<input type="radio"/>	None
<input type="radio"/>	1–15 minutes per week
<input type="radio"/>	16–30 minutes per week
<input type="radio"/>	31–60 minutes per week
<input type="radio"/>	61–90 minutes per week
<input type="radio"/>	91–120 minutes per week
<input type="radio"/>	More than 2 hours per week

**38.** How often are students in this class required to take mathematics tests that you did not choose to administer, for example state assessments or district benchmarks? Do not include Advanced Placement or International Baccalaureate exams or students retaking a test because of failure.

<input type="radio"/>	Never
<input type="radio"/>	Once a year
<input type="radio"/>	Twice a year
<input type="radio"/>	Three or four times a year
<input type="radio"/>	Five or more times a year

**39.** Please indicate the availability of projection devices (for example: Smartboard, document camera, LCD projector) for your mathematics instruction in this class.

<input type="radio"/>	Always available in your classroom
<input type="radio"/>	Available upon request
<input type="radio"/>	Not available

**40.** Mathematics courses may benefit from the availability of particular resources. Considering what you have available, how adequate is each of the following for teaching this mathematics class? [Select one on each row.]

	NOT ADEQUATE		SOMEWHAT ADEQUATE		ADEQUATE
a. Instructional technology (for example: calculators, computers, probes/sensors)	①	②	③	④	⑤
b. Measurement tools (for example: protractors, rulers)	①	②	③	④	⑤
c. Manipulatives (for example: pattern blocks, algebra tiles)	①	②	③	④	⑤
d. Consumable supplies (for example: graphing paper, batteries)	①	②	③	④	⑤



This item asks about different types of instructional materials; please read the entire list of materials before answering

41. Thinking about your instruction in this class over the entire year, about how often is instruction based on materials from each of the following sources? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL MATHEMATICS LESSONS
a. Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets) that accompany the textbooks	①	②	③	④	⑤
b. State, county, or district/diocese-developed units or lessons	①	②	③	④	⑤
c. Online units or courses that students work through at their own pace (for example: i-Ready, Edgenuity)	①	②	③	④	⑤
d. Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)	①	②	③	④	⑤
e. Lessons or resources from websites that are free (for example: Khan Academy, Illustrative Math)	①	②	③	④	⑤
f. Units or lessons you created (either by yourself or with others)	①	②	③	④	⑤
g. Units or lessons you collected from any other source (for example: conferences, journals, colleagues, university or museum partners)	①	②	③	④	⑤

42. Does your school/district/diocese designate instructional materials (textbooks, units, or lessons) to be used in this class?

- Yes
- No [\[Skip to Q44\]](#)

43. Which of the following types of instructional materials does your school/district/diocese designate to be used in this class? [Select all that apply.]

<input type="checkbox"/>	Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets) that accompany the textbooks
<input type="checkbox"/>	State, county, or district/diocese-developed instructional materials
<input type="checkbox"/>	Online units or courses that students work through at their own pace (for example: i-Ready, Edgenuity)
<input type="checkbox"/>	Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)
<input type="checkbox"/>	Lessons or resources from websites that are free (for example: Khan Academy, Illustrative Math)

44. Omitted – Used only for survey routing.

45. *[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q41a or c]*  
*[Version for teachers who indicate using a commercial textbook most often]* Please indicate the title, author, most recent copyright year, and ISBN code of the commercially published textbook (printed or electronic) used most often by the students in this class.

- The 10- or 13-character ISBN code can be found on the copyright page and/or the back cover of the textbook.
- Do not include the dashes when entering the ISBN.

Example ISBN:



*[Version for teachers who indicate using an online course most often]* Please indicate the title and URL of the online units or courses used most often by the students in this class.

Title:	
First Author: <i>[for teachers who indicate using a commercial textbook most often]</i>	
Year: <i>[for teachers who indicate using a commercial textbook most often]</i>	
ISBN: <i>[for teachers who indicate using a commercial textbook most often]</i>	
URL: <i>[for teachers who indicate using an online program most often]</i>	

46. Please rate how each of the following affects your mathematics instruction in this class.  
[Select one on each row.]

	INHIBITS EFFECTIVE INSTRUCTION		NEUTRAL OR MIXED		PROMOTES EFFECTIVE INSTRUCTION	N/A
a. Current state standards	①	②	③	④	⑤	<input type="radio"/>
b. District/Diocese and/or school pacing guides	①	②	③	④	⑤	<input type="radio"/>
c. State/district/diocese testing/accountability policies <i>[Not presented to non-Catholic private schools]</i>	①	②	③	④	⑤	<input type="radio"/>
d. Textbook selection policies	①	②	③	④	⑤	<input type="radio"/>
e. Teacher evaluation policies	①	②	③	④	⑤	<input type="radio"/>
f. College entrance requirements <i>[Presented to grades 9–12 teachers only]</i>	①	②	③	④	⑤	<input type="radio"/>
g. Students' prior knowledge and skills	①	②	③	④	⑤	<input type="radio"/>
h. Students' motivation, interest, and effort in mathematics	①	②	③	④	⑤	<input type="radio"/>
i. Parent/guardian expectations and involvement	①	②	③	④	⑤	<input type="radio"/>
j. Principal support	①	②	③	④	⑤	<input type="radio"/>
k. Amount of time for you to plan, individually and with colleagues	①	②	③	④	⑤	<input type="radio"/>
l. Amount of time available for your professional development	①	②	③	④	⑤	<input type="radio"/>
m. Amount of instructional time devoted to mathematics <i>[Presented to grades K–5 teachers only]</i>	①	②	③	④	⑤	<input type="radio"/>

### Your Most Recently Completed Mathematics Unit in this Class

The questions in this section are about the most recently completed mathematics unit in this class which you indicated is *[type indicated in Q10]* and is titled *[title provided in Q11]*.

- Depending on the structure of your class and the instructional materials you use, a unit may range from a few to many class periods.
- Do not be concerned if this unit was not typical of your instruction.

47. Which one of the following best describes the content focus of this unit?

<input type="radio"/>	Number and operations
<input type="radio"/>	Measurement and data representation
<input type="radio"/>	Algebra
<input type="radio"/>	Geometry
<input type="radio"/>	Probability
<input type="radio"/>	Statistics
<input type="radio"/>	Trigonometry
<input type="radio"/>	Calculus

**48. [Presented only to teachers who selected “Sometimes” “Often” or “All” for Q41 a or b]**

Was this unit based primarily on a commercially published textbook or state, county, or district/diocese-developed materials?

<input type="radio"/>	Yes
<input checked="" type="radio"/>	No <i>[Skip to Q53]</i>

This next set of items is about the textbook or state, county, or district/diocese-developed lessons you used in this unit.

**49. Please indicate the extent to which you did each of the following while teaching this unit. [Select one on each row.]**

	NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a. I used these materials to guide the structure and content emphasis of the unit.	①	②	③	④	⑤
b. I picked what is important from these materials and skipped the rest.	①	②	③	④	⑤
c. I incorporated activities (for example: problems, investigations, readings) from other sources to supplement what these materials were lacking.	①	②	③	④	⑤
d. I modified activities from these materials.	①	②	③	④	⑤

**50. [Presented only to teachers who did not select “Not at all” for Q49b]**

During this unit, when you skipped activities (for example: problems, investigations, readings) in these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

	NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a. The mathematical ideas addressed in the activities I skipped are not included in my pacing guide/standards.	①	②	③
b. I did not have the materials needed to implement the activities I skipped.	①	②	③
c. I did not have the knowledge needed to implement the activities I skipped.	①	②	③
d. The activities I skipped were too difficult for my students.	①	②	③
e. My students already knew the mathematical ideas or were able to learn them without the activities I skipped.	①	②	③
f. I have different activities for those mathematical ideas that work better than the ones I skipped.	①	②	③
g. I did not have enough instructional time for the activities I skipped.	①	②	③

**51. [Presented only to teachers who did not select “Not at all” for Q49c]**

During this unit, when you supplemented these materials with additional activities, how much was each of the following a factor in your decisions? [Select one on each row.]

	NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a. My pacing guide indicated that I should use supplemental activities.	①	②	③
b. Supplemental activities were needed to prepare students for standardized tests.	①	②	③
c. Supplemental activities were needed to provide students with additional practice.	①	②	③
d. Supplemental activities were needed so students at different levels of achievement could increase their understanding of the ideas targeted in each activity.	①	②	③
e. I had additional activities that I liked.	①	②	③

**52. [Presented only to teachers who did not select “Not at all” in Q49d]**

During this unit, when you modified activities from these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

	NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a. I did not have the necessary materials/supplies for the original activities.	①	②	③
b. The original activities were too difficult conceptually for my students.	①	②	③
c. The original activities were too easy conceptually for my students.	①	②	③
d. I did not have enough instructional time to implement the activities as designed.	①	②	③
e. The original activities were too structured for my students.	①	②	③
f. The original activities were not structured enough for my students.	①	②	③

**53. How well prepared did you feel to do each of the following as part of your instruction on this particular unit? [Select one on each row.]**

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Anticipate difficulties that students may have with particular mathematical ideas and procedures in this unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Find out what students thought or already knew about the key mathematical ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Implement the instructional materials (for example: mathematics textbook) to be used during this unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Monitor student understanding during this unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Assess student understanding at the conclusion of this unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Your Most Recent Mathematics Lesson in this Class

The next three questions refer to the most recent mathematics lesson in this class, which you indicated is *[type indicated in Q10]* and is titled *[title provided in Q11]*, even if it included activities and/or interruptions that are not typical (for example: a test, students working on projects, a fire drill). If the lesson spanned multiple days, please answer for the most recent day.

54. How many minutes was that day's mathematics lesson? Answer for the entire length of the class period, even if there were interruptions. [Enter your response as a non-zero whole number (for example: 50).] \_\_\_\_\_

55. Of these *[answer to Q54]* minutes, how many were spent on the following: [Enter each response as a whole number (for example: 15).]

a.	Non-instructional activities (for example: attendance taking, interruptions)	
b.	Whole class activities (for example: lectures, explanations, discussions)	
c.	Small group work	
d.	Students working individually (for example: reading textbooks, completing worksheets, taking a test or quiz)	

56. Which of the following activities took place during that day's mathematics lesson? [Select all that apply.]

<input type="checkbox"/>	Teacher explaining a mathematical idea to the whole class
<input type="checkbox"/>	Teacher conducting a demonstration while students watched
<input type="checkbox"/>	Whole class discussion
<input type="checkbox"/>	Students working in small groups
<input type="checkbox"/>	Students completing textbook/worksheet problems
<input type="checkbox"/>	Students doing hands-on/manipulative activities
<input type="checkbox"/>	Students reading about mathematics
<input type="checkbox"/>	Students writing about mathematics (do not include students taking notes)
<input type="checkbox"/>	Practicing for standardized tests
<input type="checkbox"/>	Test or quiz
<input type="checkbox"/>	None of the above

## Demographic Information

57. Are you:

<input type="radio"/>	Female
<input type="radio"/>	Male
<input type="radio"/>	Other

58. Are you of Hispanic or Latino origin?

<input type="radio"/>	Yes
<input type="radio"/>	No

**59.** What is your race? [Select all that apply.]

<input type="checkbox"/>	American Indian or Alaskan Native
<input type="checkbox"/>	Asian
<input type="checkbox"/>	Black or African American
<input type="checkbox"/>	Native Hawaiian or Other Pacific Islander
<input type="checkbox"/>	White

**60.** In what year were you born? [Enter your response as a whole number (for example: 1969).]

\_\_\_\_\_

**Thank you!**

