Section Three

Mathematics Teacher Questionnaire

Mathematics Questionnaire

MTQ Tables

2000 National Survey of Science and Mathematics Education

Mathematics Questionnaire

You have been selected to answer questions about your mathematics instruction. If you do not currently teach mathematics, please call us toll-free at 1-800-937-8288.

How to Complete the Questionnaire

Most of the questions instruct you to "darken one" answer or "darken all that apply." For a few questions, you are asked to write in your answer on the line provided. Please use a #2 pencil or blue or black pen to complete this questionnaire. Darken ovals completely, but do not stray into adjacent ovals. Be sure to erase or white out completely any stray marks.

Class Selection

Part of the questionnaire (sections C and D) asks you to provide information about instruction in a particular class. If you teach mathematics to more than one class, use the label at the right to determine the mathematics class that has been randomly selected for you to answer about. (If your teaching schedule varies by day, use today's schedule, or if today is not a school day, use the most recent school day.)

If You Have Questions

If you have questions about the study or any items in the questionnaire, call us toll-free at 1-800-937-8288.

Each participating school will receive a voucher for $50 worth of science and mathematics materials. The voucher will be augmented by $15 for each responding teacher. In addition, each participating school will receive a copy of the study's results in the spring of 2001.

Thank you very much. Your participation is greatly appreciated. Please return the completed questionnaire to us in the postage-paid envelope:

2000 National Survey of Science and Mathematics Education
Westat
1650 Research Blvd.
TB120F
Rockville, MD 20850

A. Teacher Opinions

1. Please provide your opinion about each of the following statements. (Darken one oval on each line.)

		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.	The testing program in my state/district dictates what mathematics content I teach.	①	②	③	④	⑤
c.	I enjoy teaching mathematics.	①	②	③	④	⑤
d.	I consider myself a "master" mathematics teacher.	①	②	③	④	⑤
e.	I have time during the regular school week to work with my colleagues on mathematics curriculum and teaching.	①	②	③	④	⑤
f.	My colleagues and I regularly share ideas and materials related to mathematics teaching.	①	②	③	④	⑤
g.	Mathematics teachers in this school regularly observe each other teaching classes as part of sharing and improving instructional strategies.	①	②	③	④	⑤
h.	Most mathematics teachers in this school contribute actively to making decisions about the mathematics curriculum.	①	②	③	④	⑤

2a. How familiar are you with the NCTM *Standards*? (Darken one oval.)

- ① Not at all familiar, SKIP TO QUESTION 3
- ② Somewhat familiar
- ③ Fairly familiar
- ④ Very familiar

2b. Please indicate the extent of your agreement with the overall vision of mathematics education described in the NCTM *Standards.* (Darken one oval.)

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
①	②	③	④	⑤

2c. To what extent have you implemented recommendations from the NCTM *Standards* in your mathematics teaching? (Darken one oval.)

Not at all	To a minimal extent	To a moderate extent	To a great extent
①	②	③	④

B. Teacher Background

3. Please indicate how well prepared you currently feel to do each of the following in your mathematics instruction. (Darken one oval on each line.)

		Not Adequately Prepared	Somewhat Prepared	Fairly Well Prepared	Very Well Prepared
a.	Take students' prior understanding into account when planning curriculum and instruction	①	②	③	④
b.	Develop students' conceptual understanding of mathematics	①	②	③	④
c.	Provide deeper coverage of fewer mathematics concepts	①	②	③	④
d.	Make connections between mathematics and other disciplines	①	②	③	④
e.	Lead a class of students using investigative strategies	①	②	③	④
f.	Manage a class of students engaged in hands-on/project-based work	①	②	③	④
g.	Have students work in cooperative learning groups	①	②	③	④
h.	Listen/ask questions as students work in order to gauge their understanding	①	②	③	④
i.	Use the textbook as a resource rather than the primary instructional tool	①	②	③	④
j.	Teach groups that are heterogeneous in ability	①	②	③	④
k.	Teach students who have limited English proficiency	①	②	③	④
l.	Recognize and respond to student cultural diversity	①	②	③	④
m.	Encourage students' interest in mathematics	①	②	③	④
n.	Encourage participation of females in mathematics	①	②	③	④
o.	Encourage participation of minorities in mathematics	①	②	③	④

Question 3 continues on next page...

3. *continued...*

		Not Adequately Prepared	Somewhat Prepared	Fairly Well Prepared	Very Well Prepared
p.	Involve parents in the mathematics education of their children	○	○	○	○ 4
q.	Use calculators/computers for drill and practice	○	○	○	○
r.	Use calculators/computers for mathematics learning games	○	○	○	○
s.	Use calculators/computers to collect and/or analyze data	○	○	○	○
t.	Use calculators/computers to demonstrate mathematics principles	○	○	○	○
u.	Use calculators/computers for simulations and applications	○	○	○	○
v.	Use the Internet in your mathematics teaching for general reference	○	○	○	○
w.	Use the Internet in your mathematics teaching for data acquisition	○	○	○	○
x.	Use the Internet in your mathematics teaching for collaborative projects with classes/individuals in other schools	○	○	○	○

4a. Do you have each of the following degrees?

Bachelors	○ Yes	○ No
Masters	○ Yes	○ No
Doctorate	○ Yes	○ No

4b. Please indicate the subject(s) for each of your degrees.
(Darken all that apply.)

	Bachelors	Masters	Doctorate
Mathematics	○	○	○
Computer Science	○	○	○
Mathematics Education	○	○	○
Science/Science Education	○	○	○
Elementary Education	○	○	○
Other Education (e.g., History Education, Special Education)	○	○	○
Other, please specify _____	○	○	○

5. Which of the following college courses have you completed? Include both semester hour and quarter hour courses, whether graduate or undergraduate level. Include courses for which you received college credit, even if you took the course in high school. (Darken all that apply.)

MATHEMATICS

- ○ Mathematics for elementary school teachers
- ○ Mathematics for middle school teachers
- ○ Geometry for elementary/middle school teachers
- ○ College algebra/trigonometry/elementary functions
- ○ Calculus
- ○ Advanced calculus
- ○ Real analysis
- ○ Differential equations
- ○ Geometry
- ○ Probability and statistics
- ○ Abstract algebra
- ○ Number theory
- ○ Linear algebra
- ○ Applications of mathematics/problem solving
- ○ History of mathematics
- ○ Discrete mathematics
- ○ Other upper division mathematics

SCIENCES/COMPUTER SCIENCES

- ○ Biological sciences
- ○ Chemistry
- ○ Physics
- ○ Physical science
- ○ Earth/space science
- ○ Engineering (any)
- ○ Computer programming
- ○ Other computer science

EDUCATION

- ○ General methods of teaching
- ○ Methods of teaching mathematics
- ○ Instructional uses of computers/other technologies
- ○ Supervised student teaching in mathematics

6. For each of the following subject areas, indicate the number of college semester and quarter courses you have completed. Count each course you have taken, regardless of whether it was a graduate or undergraduate course. If your transcripts are not available, provide your best estimates.

	Semester Courses	Quarter Courses
a. Mathematics education		
b. Calculus		
c. Statistics		
d. Advanced calculus		
e. All other mathematics courses		
f. Computer science		
g. Science		

7. Considering all of your undergraduate and graduate **mathematics** courses, approximately what percentage were completed at each of the following types of institutions? (Darken one oval on each line.)

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
a. Two-year college/community college/technical school											
b. Four-year college/university											

8. In what year did you last take a formal course for college credit in: (Please enter your answers in the spaces provided, then darken the corresponding oval in each column.)

a. Mathematics

b. The Teaching of Mathematics

If you have never taken a course in the teaching of mathematics, darken this oval and go to question 9.

9. What is the **total** amount of time you have spent on professional development in mathematics or the teaching of mathematics in the last 12 months? in the last 3 years? (Include attendance at professional meetings, workshops, and conferences, but **do not** include formal courses for which you received college credit or time you spent **providing** professional development for other teachers.) (Darken one oval in each column.)

Hours of In-service Education	Last 12 months	Last 3 years
None		
Less than 6 hours		
6-15 hours		
16-35 hours		
More than 35 hours		

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

10. In the past **12 months**, have you:
(Darken one oval on each line.)

a.	Taught any in-service workshops in mathematics or mathematics teaching?	Yes	No
b.	Mentored another teacher as part of a formal arrangement that is recognized or supported by the school or district, not including supervision of student teachers?	Yes	No
c.	Received any local, state, or national grants or awards for mathematics teaching?	Yes	No
d.	Served on a school or district mathematics curriculum committee?	Yes	No
e.	Served on a school or district mathematics textbook selection committee?	Yes	No

11. In the past **3 years**, have you participated in any of the following activities related to mathematics or the teaching of mathematics? (Darken one oval on each line.)

a.	Taken a formal college/university mathematics course. (Please do not include courses taken as part of your undergraduate degree.)	Yes	No
b.	Taken a formal college/university course in the teaching of mathematics. (Please do not include courses taken as part of your undergraduate degree.)	Yes	No
c.	Observed other teachers teaching mathematics as part of your own professional development (formal or informal).	Yes	No
d.	Met with a local group of teachers to study/discuss mathematics teaching issues on a regular basis.	Yes	No
e.	Collaborated on mathematics teaching issues with a group of teachers at a distance using telecommunications.	Yes	No
f.	Served as a mentor and/or peer coach in mathematics teaching, as part of a formal arrangement that is recognized or supported by the school or district. (Please do not include supervision of student teachers.)	Yes	No
g.	Attended a workshop on mathematics teaching.	Yes	No
h.	Attended a national or state mathematics teacher association meeting.	Yes	No
i.	Applied or applying for certification from the National Board for Professional Teaching Standards (NBPTS).	Yes	No
j.	Received certification from the National Board for Professional Teaching Standards (NBPTS).	Yes	No

Questions 12a-12c ask about your professional development in the last 3 years. If you have been teaching for fewer than 3 years, please answer for the time that you have been teaching.

12a. Think back to **3 years ago**. How would you rate your level of need for professional development in each of these areas *at that time*? (Darken one oval on each line.)

	None Needed	Minor Need	Moderate Need	Substantial Need
Deepening my own mathematics content knowledge				
Understanding student thinking in mathematics				
Learning how to use inquiry/investigation-oriented teaching strategies				
Learning how to use technology in mathematics instruction				
Learning how to assess student learning in mathematics				
Learning how to teach mathematics in a class that includes students with special needs				

12b. Considering all the professional development you have participated in **during the last 3 years**, how much was each of the following emphasized? (Darken one oval on each line.)

	Not at all				To a great extent
Deepening my own mathematics content knowledge	○	○	○	○	○
Understanding student thinking in mathematics	○	○	○	○	○
Learning how to use inquiry/investigation-oriented teaching strategies	○	○	○	○	○
Learning how to use technology in mathematics instruction	○	○	○	○	○
Learning how to assess student learning in mathematics	○	○	○	○	○
Learning how to teach mathematics in a class that includes students with special needs	○	○	○	○	○

12c. Considering all your professional development in the **last 3 years**, how would you rate its impact in each of these areas? (Darken one oval on each line.)

	Little or no impact	Confirmed what I was already doing	Caused me to change my teaching practices
Deepening my own mathematics content knowledge	○	○	○
Understanding student thinking in mathematics	○	○	○
Learning how to use inquiry/investigation-oriented teaching strategies	○	○	○
Learning how to use technology in mathematics instruction	○	○	○
Learning how to assess student learning in mathematics	○	○	○
Learning how to teach mathematics in a class that includes students with special needs	○	○	○

13a. Do you teach in a **self-contained class**? (i.e., you teach multiple subjects to the same class of students all or most of the day.)

○ Yes, CONTINUE WITH QUESTIONS 13b AND 13c
○ No, SKIP TO QUESTION 14

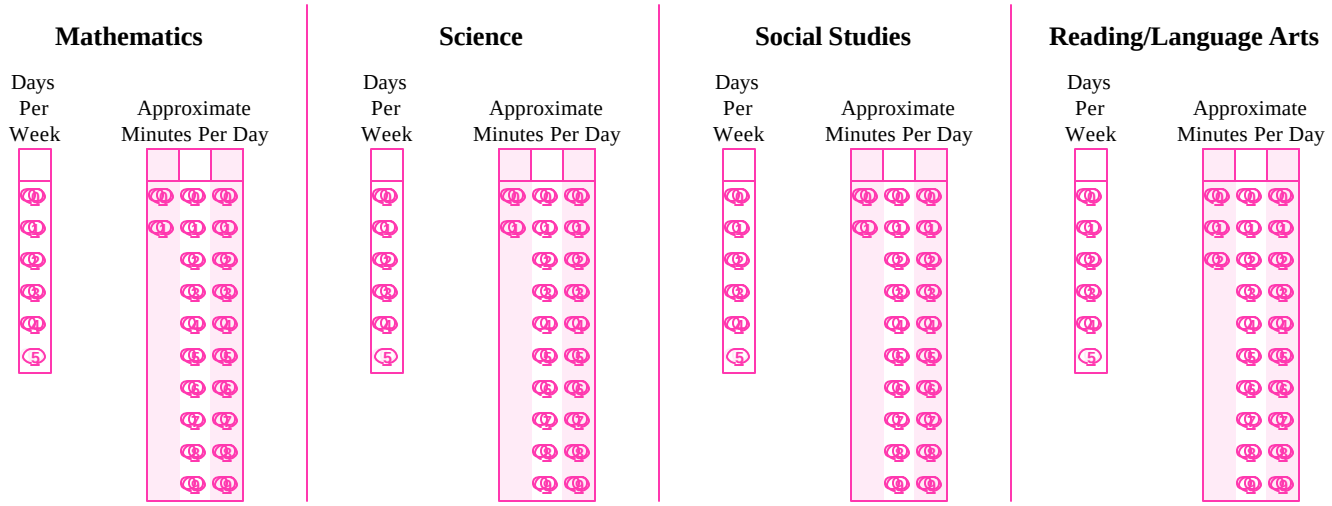
13b. ***For teachers of self-contained classes*:** Many teachers feel better qualified to teach some subject areas than others. How well qualified do you feel to teach each of the following subjects **at the grade level(s) you teach**, whether or not they are currently included in your curriculum? (Darken one oval on each line.)

		Not Well Qualified	Adequately Qualified	Very Well Qualified
a.	Life science	○	○	○
b.	Earth science	○	○	○
c.	Physical science	○	○	○
d.	Mathematics	○	○	○
e.	Reading/Language Arts	○	○	○
f.	Social Studies	○	○	○

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

13c. ***For teachers of self-contained classes:*** We are interested in knowing how much time your students spend studying various subjects. In a typical week, how many days do you have lessons on each of the following subjects, and how many minutes long is an average lesson? (*Please indicate "0" if you do not teach a particular subject to this class.* Please enter your answer in the spaces provided, then darken the corresponding oval in each column. Enter the number of minutes as a 3-digit number; e.g., if 30 minutes, enter as 030.)



NOW GO TO SECTION C, PAGE 8.

14. Which of these categories best describes the way **your** classes at this school are organized? (Darken one oval.)

a. **Departmentalized Instruction**—you teach subject matter courses (including mathematics, and perhaps other courses) to several different classes of students all or most of the day.
b. **Elementary Enrichment Class**—you teach only mathematics in an elementary school.
c. **Team Teaching**—you collaborate with one or more teachers in teaching multiple subjects to the same class of students; your assignment includes mathematics.

15a. ***For teachers of non-self-contained classes:*** Within mathematics, many teachers feel better qualified to teach some topics than others. How well qualified 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 curriculum? (Darken one oval on each line.)

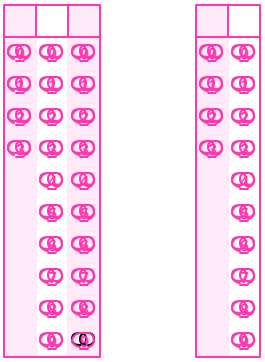
		Not Well Qualified	Adequately Qualified	Very Well Qualified
a.	Numeration and number theory			
b.	Computation			
c.	Estimation			
d.	Measurement			
e.	Pre-algebra			
f.	Algebra			
g.	Patterns and relationships			
h.	Geometry and spacial sense			
i.	Functions (including trigonometric functions) and pre-calculus concepts			
j.	Data collection and analysis			
k.	Probability			
l.	Statistics (e.g., hypothesis tests, curve fitting and regression)			
m.	Topics from discrete mathematics (e.g., combinatorics, graph theory, recursion)			
n.	Mathematical structures (e.g., vector spaces, groups, rings, fields)			
o.	Calculus			
p.	Technology (calculators, computers) in support of mathematics			

15b. ***For teachers of non-self-contained classes*:** For each class period you are currently teaching, regardless of the subject, give *course title*, the *code-number* from the enclosed blue "List of Course Titles" that best describes the content addressed in the class, and the *number of students* in the class. (Please enter your answers in the spaces provided, then darken the corresponding oval in each column. **If you teach more than one section of a course, record each section separately below**.)

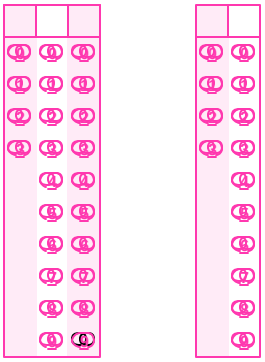
- Note that if you have more than 39 students in any class, you will not be able to darken the ovals, but you should still write the number in the boxes.

- If you teach more than 6 classes per day, please provide the requested information for the additional classes on a separate sheet of paper.

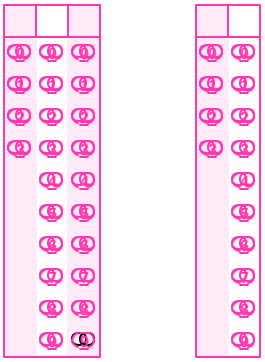
Course Title _____ Code # # of Students



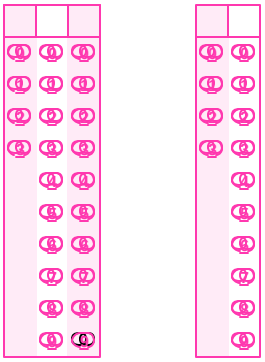
Course Title _____ Code # # of Students



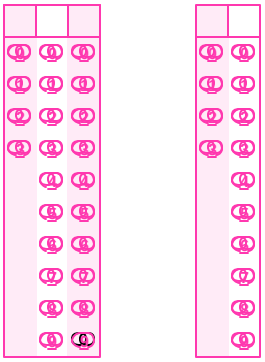
Course Title _____ Code # # of Students



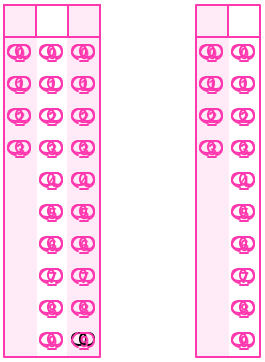
Course Title _____ Code # # of Students



Course Title _____ Code # # of Students



Course Title _____ Code # # of Students



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[SERIAL]

C. Your Mathematics Teaching in a Particular Class

The questions in this section are about a particular mathematics class you teach. **If you teach mathematics to more than one class per day, please consult the label on the front of this questionnaire to determine which mathematics class to use to answer these questions.**

16. Using the blue "List of Course Titles," indicate the code number that best describes this course. Please enter your answer in the spaces to the right, then darken the corresponding oval in each column. (If "other" [Code 299], briefly describe content of course:

_____

_____

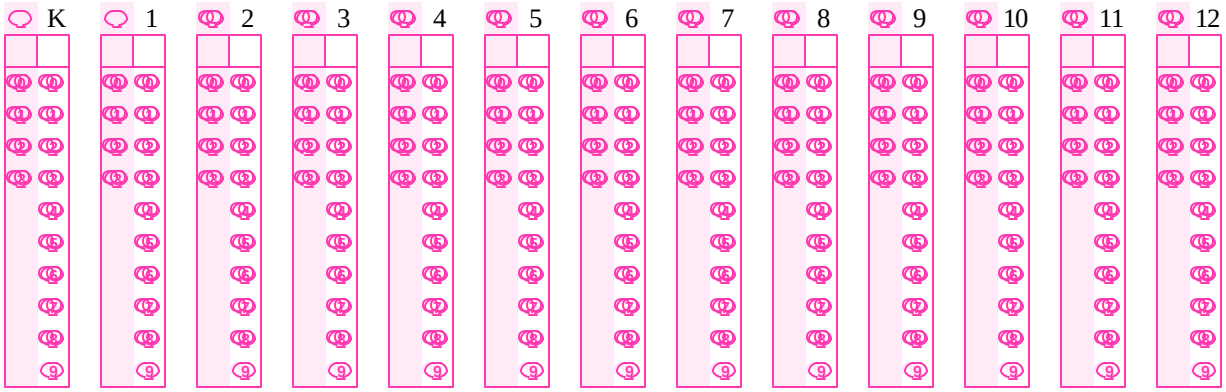
_____)

Code #

17a. Are all students in this class in the same grade?

- Yes, specify grade:
  THEN SKIP TO QUESTION 18a
- No, CONTINUE WITH QUESTION 17b

17b. What grades are represented in this class? (Darken all that apply.) For each grade noted, indicate the number of students in this class in that grade. Write your answer in the space provided, then darken the corresponding oval in each column. **Note that if more than 39 students in this class are in a single grade, you will not be able to darken the ovals, but you should still write the number in the boxes.**



18a. What is the total number of students in this class? Write your answer in the space provided, then darken the corresponding oval in each column. **Note that if you have more than 39 students in this class , you will not be able to darken the ovals, but you should still write the number in the boxes.**

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

18b. Please indicate the number of students in this class in each of the following categories. Consult the enclosed federal guidelines at the end of the course list (blue sheet) if you have any questions about how to classify particular students. (Please enter your answers in the spaces provided, then darken the corresponding oval in each column.)

RACE/ETHNICITY

American Indian or Alaskan Native		Asian		Black or African-American		Hispanic or Latino (any race)		Native Hawaiian or Other Pacific Islander		White	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female

19a. **Questions 19a and 19b apply only to teachers of non-self-contained classes. If you teach a self-contained class, please darken this oval** **and skip to question 20.** What is the usual schedule and length (in minutes) of daily class meetings for this class? If the weekly schedule is normally the same, just complete Week 1, as in Example 1. If you are unable to describe this class in the format below, please attach a separate piece of paper with your description.

	Week 1	Week 2
Monday	_____	_____
Tuesday	_____	_____
Wednesday	_____	_____
Thursday	_____	_____
Friday	_____	_____

Examples

Example 1		Example 2	
Week 1	Week 2	Week 1	Week 2
45	_____	90	_____
45	_____	_____	90
45	_____	90	_____
45	_____	_____	90
45	_____	90	_____

For office use only

19b. What is the calendar duration of this mathematics class? (Darken one oval.)

- Year
- Semester
- Quarter

20. Are students assigned to this class by level of ability? (Darken one oval.) Yes No

21. Which of the following best describes the ability of the students in this class relative to other students in this school? (Darken one oval.)

- Fairly homogeneous and low in ability
- Fairly homogeneous and average in ability
- Fairly homogeneous and high in ability
- Heterogeneous, with a mixture of two or more ability levels

22. Indicate if any of the students in this mathematics class are **formally** classified as each of the following: (Darken all that apply.)

- Limited English Proficiency
- Learning Disabled
- Mentally Handicapped
- Physically Handicapped, please specify handicap(s): _____

23. Think about your plans for this mathematics class for the entire course. How much emphasis will each of the following **student objectives** receive? (Darken one oval on each line.)

	None	Minimal Emphasis	Moderate Emphasis	Heavy Emphasis
a. Increase students' interest in mathematics				
b. Learn mathematical concepts				
c. Learn mathematical algorithms/procedures				
d. Develop students' computational skills				
e. Learn how to solve problems				
f. Learn to reason mathematically				
g. Learn how mathematics ideas connect with one another				
h. Prepare for further study in mathematics				
i. Understand the logical structure of mathematics				
j. Learn about the history and nature of mathematics				
k. Learn to explain ideas in mathematics effectively				
l. Learn how to apply mathematics in business and industry				
m. Learn to perform computations with speed and accuracy				
n. Prepare for standardized tests				

24. About how often do **you** do each of the following in your mathematics instruction? (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all mathematics lessons
a. Introduce content through formal presentations					
b. Pose open-ended questions					
c. Engage the whole class in discussions					
d. Require students to explain their reasoning when giving an answer					
e. Ask students to explain concepts to one another					
f. Ask students to consider alternative methods for solutions					
g. Ask students to use multiple representations (e.g., numeric, graphic, geometric, etc.)					
h. Allow students to work at their own pace					
i. Help students see connections between mathematics and other disciplines					
j. Assign mathematics homework					
k. Read and comment on the reflections students have written, e.g., in their journals					

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

25. About how often do students in this **mathematics** class take part in the following types of activities? (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all mathematics lessons
a. Listen and take notes during presentation by teacher	①	②	③	④	⑤
b. Work in groups	①	②	③	④	⑤
c. Read from a mathematics textbook in class	①	②	③	④	⑤
d. Read other (non-textbook) mathematics-related materials in class	①	②	③	④	⑤
e. Engage in mathematical activities using concrete materials	①	②	③	④	⑤
f. Practice routine computations/algorithms	①	②	③	④	⑤
g. Review homework/worksheet assignments	①	②	③	④	⑤
h. Follow specific instructions in an activity or investigation	①	②	③	④	⑤
i. Design their *own* activity or investigation	①	②	③	④	⑤
j. Use mathematical concepts to interpret and solve applied problems	①	②	③	④	⑤
k. Answer textbook or worksheet questions	①	②	③	④	⑤
l. Record, represent, and/or analyze data	①	②	③	④	⑤
m. Write reflections (e.g., in a journal)	①	②	③	④	⑤
n. Make formal presentations to the rest of the class	①	②	③	④	⑤
o. Work on extended mathematics investigations or projects (a week or more in duration)	①	②	③	④	⑤
p. Use calculators or computers for learning or practicing skills	①	②	③	④	⑤
q. Use calculators or computers to develop conceptual understanding	①	②	③	④	⑤
r. Use calculators or computers as a tool (e.g., spreadsheets, data analysis)	①	②	③	④	⑤

26. About how often do students in this mathematics class use **calculators/computers** to: (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all mathematics lessons
a. Do drill and practice	①	②	③	④	⑤
b. Demonstrate mathematics principles	①	②	③	④	⑤
c. Play mathematics learning games	①	②	③	④	⑤
d. Do simulations	①	②	③	④	⑤
e. Collect data using sensors or probes	①	②	③	④	⑤
f. Retrieve or exchange data	①	②	③	④	⑤
g. Solve problems using simulations	①	②	③	④	⑤
h. Take a test or quiz	①	②	③	④	⑤

27. How often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all mathematic lessons
a. Conduct a pre-assessment to determine what students already know.	①	②	③	④	⑤
b. Observe students and ask questions as they work individually.	①	②	③	④	⑤
c. Observe students and ask questions as they work in small groups.	①	②	③	④	⑤
d. Ask students questions during large group discussions.	①	②	③	④	⑤
e. Use assessments embedded in class activities to see if students are "getting it"	①	②	③	④	⑤
f. Review student homework.	①	②	③	④	⑤
g. Review student notebooks/journals.	①	②	③	④	⑤
h. Review student portfolios.	①	②	③	④	⑤
i. Have students do long-term mathematics projects.	①	②	③	④	⑤
j. Have students present their work to the class.	①	②	③	④	⑤
k. Give predominantly short-answer tests (e.g., multiple choice, true/false, fill in the blank).	①	②	③	④	⑤

Question 27 continues on next page...

27. *continued*

		Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all mathematics lessons
l.	Give tests requiring open-ended responses (e.g., descriptions, explanations).	①	②	③	④	⑤
m.	Grade student work on open-ended and/or laboratory tasks using defined criteria (e.g., a scoring rubric).	①	②	③	④	⑤
n.	Have students assess each other (peer evaluation).	①	②	③	④	⑤

28. For the following equipment, please indicate the extent to which each is available, whether or not each is needed, and the extent to which each is integrated in this mathematics class.

		Not at all Available		Readily Available	Needed?		Never use in this course	Use in specific parts of this course	Fully integrated into this course
a.	Overhead projector	①	②	③	①	②	①	②	③
b.	Videotape player	①	②	③	①	②	①	②	③
c.	Videodisc player	①	②	③	①	②	①	②	③
d.	CD-ROM player	①	②	③	①	②	①	②	③
e.	Four-function calculators	①	②	③	①	②	①	②	③
f.	Fraction calculators	①	②	③	①	②	①	②	③
g.	Graphing calculators	①	②	③	①	②	①	②	③
h.	Scientific calculators	①	②	③	①	②	①	②	③
i.	Computers	①	②	③	①	②	①	②	③
j.	Calculator/computer lab interfacing devices	①	②	③	①	②	①	②	③
k.	Computers with Internet connection	①	②	③	①	②	①	②	③

29. How much of your own money do you estimate you will spend for supplies for this mathematics class this school year (or semester or quarter if not a full-year course)? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter $25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

$ ___ ___ ___

If none, darken this oval: ①

30. How much of your own money do you estimate you will spend for your own professional development activities during the period Sept. 1, 1999 - Aug. 31, 2000? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter $25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

$ ___ ___ ___

If none, darken this oval: ①

31. How much control do you have over each of the following for this mathematics class? (Darken one oval on each line.)

		No Control				Strong Control
a.	Determining course goals and objectives	①	②	③	④	⑤
b.	Selecting textbooks/instructional programs	①	②	③	④	⑤
c.	Selecting other instructional materials	①	②	③	④	⑤
d.	Selecting content, topics, and skills to be taught	①	②	③	④	⑤
e.	Selecting the sequence in which topics are covered	①	②	③	④	⑤
f.	Setting the pace for covering topics	①	②	③	④	⑤
g.	Selecting teaching techniques	①	②	③	④	⑤
h.	Determining the amount of homework to be assigned	①	②	③	④	⑤
i.	Choosing criteria for grading students	①	②	③	④	⑤
j.	Choosing tests for classroom assessment	①	②	③	④	⑤

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

32. How much mathematics homework do you assign to this mathematics class in a typical **week**? (Darken one oval.)

○ 0-30 min ○ 31-60 min ○ 61-90 min ○ 91-120 min ○ 2-3 hours ○ More than 3 hours

33a. Are you using one or more commercially published textbooks or programs for teaching mathematics to this class? (Darken one oval.)

○ No, SKIP TO SECTION D, PAGE 14
○ Yes, CONTINUE WITH 33b

33b. Which best describes your use of textbooks/programs in this class? (Darken one oval.)

○ Use one textbook or program all or most of the time
○ Use multiple textbooks/programs

34. Indicate the publisher of the **one** textbook/program used **most often** by students in this class. (Darken one oval.)

○ 01 Addison Wesley Longman, Inc/Scott Foresman
○ 02 Brooks/Cole Publishing Co
○ 03 CORD Communications
○ 04 Creative Publications
○ 05 Dale Seymour Publications
○ 06 EFA & Associates
○ 07 Encyclopaedia Britannica
○ 08 Everyday Learning Corporation
○ 09 Globe Fearon, Inc / Cambridge
○ 10 Harcourt Brace/Harcourt, Brace & Jovanovich
○ 11 Holt, Rinehart and Winston, Inc
○ 12 Houghton Mifflin Company/McDougal Littell/D.C. Heath
○ 13 Kendall Hunt Publishing
○ 14 Key Curriculum Press
○ 15 McGraw-Hill/Merrill Co (including CTB/McGraw-Hill, Charles Merrill Publishing, Glencoe/McGraw-Hill, Macmillan/McGraw-Hill, McGraw-Hill School Division, Merrill/Glencoe, SRA/McGraw-Hill)
○ 16 Optical Data Corporation
○ 17 Prentice Hall, Inc.
○ 18 Saxon Publishers
○ 19 Silver Burdett Ginn
○ 20 South-Western Educational Publishing
○ 21 VideoText Interactive
○ 22 Wadsworth Publishing
○ 23 West Educational Publishing

○ 99 Other, please specify: _____

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35a. Please indicate the title, author, and publication year of the **one** textbook/program used **most often** by students in this class.

Title: _____

First Author: _____

Publication Year: _____ Edition: _____

35b. Approximately what percentage of this textbook/program will you "cover" in this course? (Darken one oval.)

○ < 25% ○ 25-49% ○ 50-74% ○ 75-90% ○ >90%

35c. How would you rate the overall quality of this textbook/program? (Darken one oval.)

○ Very Poor ○ Poor ○ Fair ○ Good ○ Very Good ○ Excellent

D. Your Most Recent Mathematics Lesson in This Class

Questions 36-38 refer to the last time you taught mathematics to this class. Do not be concerned if this lesson was not typical of instruction in this class. (Please enter your answers as 3-digit numbers, i.e., if 30 minutes, enter as 030. Enter your answers in the spaces provided, then darken the corresponding oval in each column.)

36a. How many minutes were allocated to the most recent mathematics lesson?
Note: Teachers in departmentalized and other non-self-contained settings should answer for the entire length of the class period, even if there were interruptions.

36b. Of these, how many minutes were spent on the following:
(The sum of the numbers in 1.-6. below should equal your response in 36a.)

1. Daily routines, interruptions, and other non-instructional activities

2. Whole class lecture/discussions

3. Individual students reading textbooks, completing worksheets, etc.

4. Working with hands-on or manipulative materials

5. Non-manipulative small group work

6. Other

37. Which of the following activities took place during that mathematics lesson? (Darken all that apply.)

- Lecture
- Discussion
- Students completing textbook/worksheet problems
- Students doing hands-on/manipulative activities
- Students reading about mathematics
- Students working in small groups
- Students using calculators
- Students using computers
- Students using other technologies
- Test or quiz
- None of the above

38. Did that lesson take place on the most recent day you met with that class? Yes No

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

E. Demographic Information

39. Indicate your sex:

- ○ Male
- ○ Female

40. Are you: (Darken all that apply.)

- ○ American Indian or Alaskan Native
- ○ Asian
- ○ Black or African-American
- ○ Hispanic or Latino
- ○ Native Hawaiian or Other Pacific Islander
- ○ White

41. In what year were you born? (Enter the last two digits of the year you were born; e.g., if you were born in 1959, enter 59. Please enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

42. How many years have you taught at the K-12 level prior to this school year? (Please enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

43. If you have an email address, please write it here: _____

44. When did you complete this questionnaire? Date: _____ / _____ / _____
Month Day Year

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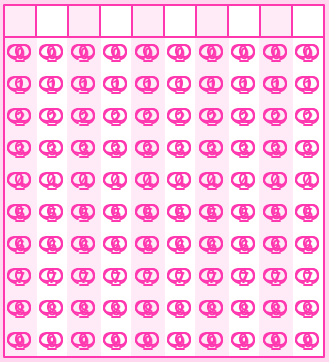
Please do not write in this area.



Please make a photocopy of this questionnaire and keep it in case the original is lost in the mail. Please return the original to:

2000 National Survey of Science and Mathematics Education
Westat
1650 Research Blvd.
TB120F
Rockville, MD 20850

THANK YOU!

Table MTQ 1.1
Grade K–4 Mathematics Teachers' Opinions on Curriculum and Instruction Issues

	Percent of Teachers									
	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
Students learn mathematics best in classes with students of similar abilities	4	(0.9)	39	(2.1)	8	(1.4)	41	(2.6)	7	(1.2)
The testing program in my state/district dictates what mathematics content I teach	1	(0.4)	13	(1.5)	7	(1.3)	55	(2.2)	24	(2.1)
I enjoy teaching mathematics	1	(0.3)	2	(0.6)	4	(1.0)	54	(2.5)	40	(2.4)
I consider myself a "master" mathematics teacher	2	(0.7)	27	(2.0)	31	(2.3)	34	(2.2)	6	(0.9)
I have time during the regular school week to work with my colleagues on mathematics curriculum and teaching	23	(2.0)	47	(2.5)	6	(1.1)	22	(2.0)	3	(0.6)
My colleagues and I regularly share ideas and materials related to mathematics teaching	6	(1.2)	33	(2.4)	5	(1.1)	49	(2.5)	8	(1.1)
Mathematics teachers in this school regularly observe each other teaching classes as part of sharing and improving instructional strategies	36	(2.2)	53	(2.3)	5	(1.0)	4	(0.9)	2	(0.7)
Most mathematics teachers in this school contribute actively to making decisions about the mathematics curriculum	13	(1.5)	32	(2.7)	18	(1.8)	33	(2.4)	4	(0.8)

Table MTQ 1.2
Grade 5–8 Mathematics Teachers' Opinions on Curriculum and Instruction Issues

	Percent of Teachers									
	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
Students learn mathematics best in classes with students of similar abilities	2	(1.2)	24	(3.1)	7	(2.6)	45	(3.4)	23	(2.5)
The testing program in my state/district dictates what mathematics content I teach	2	(1.2)	15	(2.4)	8	(1.9)	50	(3.2)	25	(3.3)
I enjoy teaching mathematics	0	(0.1)	1	(0.6)	3	(1.7)	32	(3.1)	64	(3.4)
I consider myself a "master" mathematics teacher	2	(1.0)	18	(2.9)	23	(2.6)	40	(3.5)	17	(2.3)
I have time during the regular school week to work with my colleagues on mathematics curriculum and teaching	24	(3.0)	42	(3.6)	3	(0.7)	26	(3.5)	5	(1.5)
My colleagues and I regularly share ideas and materials related to mathematics teaching	9	(2.5)	32	(3.2)	4	(1.2)	41	(3.2)	13	(2.1)
Mathematics teachers in this school regularly observe each other teaching classes as part of sharing and improving instructional strategies	41	(3.7)	47	(3.9)	6	(1.0)	5	(1.0)	2	(0.8)
Most mathematics teachers in this school contribute actively to making decisions about the mathematics curriculum	16	(3.0)	31	(2.8)	12	(2.4)	35	(2.9)	6	(1.1)

Table MTQ 1.3
Grade 9–12 Mathematics Teachers' Opinions on Curriculum and Instruction Issues

	Percent of Teachers									
	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
Students learn mathematics best in classes with students of similar abilities	2	(0.6)	14	(1.4)	4	(1.0)	56	(2.1)	24	(1.5)
The testing program in my state/district dictates what mathematics content I teach	6	(1.5)	19	(1.8)	10	(1.3)	48	(2.2)	18	(1.6)
I enjoy teaching mathematics	0	(0.1)	0	(0.1)	2	(0.7)	28	(1.7)	70	(1.9)
I consider myself a "master" mathematics teacher	0	(0.3)	11	(1.6)	20	(1.5)	46	(2.0)	23	(1.7)
I have time during the regular school week to work with my colleagues on mathematics curriculum and teaching	20	(1.4)	47	(1.8)	5	(0.7)	26	(1.5)	2	(0.5)
My colleagues and I regularly share ideas and materials related to mathematics teaching	6	(1.4)	27	(2.1)	4	(0.9)	53	(2.4)	10	(1.1)
Mathematics teachers in this school regularly observe each other teaching classes as part of sharing and improving instructional strategies	40	(2.0)	48	(2.2)	5	(0.8)	7	(0.9)	1	(0.3)
Most mathematics teachers in this school contribute actively to making decisions about the mathematics curriculum	11	(1.5)	22	(1.5)	9	(1.4)	48	(2.1)	10	(1.2)

Table MTQ 2
Mathematics Teachers' Familiarity with, Agreement with, and Implementation of NCTM *Standards*

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
How familiar are you with the NCTM *Standards*?						
Not at all familiar	38	(2.9)	27	(3.0)	15	(1.5)
Somewhat familiar	31	(2.4)	24	(3.1)	31	(1.8)
Fairly familiar	21	(2.0)	30	(2.7)	35	(1.8)
Very familiar	10	(1.5)	19	(2.1)	19	(1.3)
Please indicate the extent of your agreement with the overall vision of mathematics education described in the NCTM *Standards*						
Strongly Disagree	0	(0.2)	0	(0.2)	0	(0.2)
Disagree	1	(0.4)	3	(0.9)	6	(1.0)
No Opinion	20	(2.2)	20	(3.4)	19	(2.0)
Agree	69	(2.7)	61	(3.7)	66	(2.5)
Strongly Agree	10	(1.9)	16	(3.7)	8	(1.1)
To what extent have you implemented recommendations from the NCTM *Standards* in your mathematics teaching?						
Not at all	2	(1.0)	0	(0.1)	3	(1.0)
To a minimal extent	16	(2.1)	17	(3.0)	23	(2.2)
To a moderate extent	56	(3.5)	59	(3.1)	57	(2.6)
To a great extent	26	(2.8)	25	(3.1)	17	(1.8)

Table MTQ 3.1
Grade K–4 Mathematics Teachers' Perceptions of Their Preparation for Each of a Number of Tasks

	Percent of Teachers							
	Not Adequately Prepared		Somewhat Prepared		Fairly Well Prepared		Very Well Prepared	
Take students' prior understanding into account when planning curriculum and instruction	1	(0.4)	12	(1.7)	50	(2.2)	37	(2.1)
Develop students' conceptual understanding of mathematics	0	(0.2)	10	(1.7)	52	(2.3)	38	(2.3)
Provide deeper coverage of fewer mathematics concepts	4	(1.0)	20	(2.1)	54	(2.4)	22	(1.8)
Make connections between mathematics and other disciplines	0	(0.3)	17	(1.8)	45	(2.5)	37	(2.3)
Lead a class of students using investigative strategies	4	(0.9)	28	(2.2)	46	(2.5)	21	(2.1)
Manage a class of students engaged in hands-on/project-based work	1	(0.4)	15	(1.7)	39	(2.5)	45	(2.4)
Have students work in cooperative learning groups	1	(0.4)	13	(1.8)	40	(2.5)	46	(2.5)
Listen/ask questions as students work in order to gauge their understanding	0	(0.2)	6	(1.0)	46	(2.3)	48	(2.4)
Use the textbook as a resource rather than the primary instructional tool	5	(1.1)	14	(1.6)	44	(2.2)	37	(1.7)
Teach groups that are heterogeneous in ability	3	(0.9)	12	(1.8)	46	(2.3)	40	(2.4)
Teach students that have limited English proficiency	33	(2.5)	32	(2.3)	20	(2.4)	14	(1.8)
Recognize and respond to student cultural diversity	4	(1.0)	28	(2.2)	41	(2.1)	27	(1.9)
Encourage students' interest in mathematics	0	(0.2)	4	(0.8)	48	(2.3)	48	(2.3)
Encourage participation of females in mathematics	0	(0.1)	2	(0.6)	36	(2.6)	62	(2.5)
Encourage participation of minorities in mathematics	1	(0.4)	8	(1.3)	36	(2.6)	54	(2.5)
Involve parents in the mathematics education of their children	3	(1.0)	25	(2.4)	50	(2.5)	22	(1.9)
Use calculators/computers for drill and practice	11	(1.7)	23	(2.2)	42	(2.6)	24	(2.1)
Use calculators/computers for mathematics learning games	9	(1.3)	22	(2.2)	43	(2.9)	26	(2.1)
Use calculators/computers to collect and/or analyze data	23	(2.4)	37	(2.5)	28	(2.5)	11	(1.5)
Use calculators/computers to demonstrate mathematics principles	22	(2.4)	35	(2.5)	33	(2.3)	9	(1.3)
Use calculators/computers for simulations and applications	26	(2.5)	35	(2.0)	29	(2.4)	10	(1.4)
Use the Internet in your mathematics teaching for general reference	45	(2.7)	31	(2.4)	17	(1.6)	7	(1.2)
Use the Internet in your mathematics teaching for data acquisition	51	(2.4)	29	(2.3)	15	(1.6)	5	(1.1)
Use the Internet in you mathematics teaching for collaborative projects with classes/individuals in other schools	61	(2.3)	26	(2.3)	11	(1.4)	3	(0.9)

Table MTQ 3.2
Grade 5–8 Mathematics Teachers' Perceptions of Their Preparation for Each of a Number of Tasks

	Percent of Teachers							
	Not Adequately Prepared		Somewhat Prepared		Fairly Well Prepared		Very Well Prepared	
Take students' prior understanding into account when planning curriculum and instruction	1	(0.4)	14	(2.7)	47	(3.2)	39	(2.9)
Develop students' conceptual understanding of mathematics	1	(0.7)	10	(1.9)	50	(3.8)	38	(3.6)
Provide deeper coverage of fewer mathematics concepts	2	(0.7)	16	(2.5)	47	(3.4)	35	(3.6)
Make connections between mathematics and other disciplines	1	(0.4)	21	(2.8)	42	(3.1)	36	(3.4)
Lead a class of students using investigative strategies	4	(1.0)	29	(3.2)	45	(3.2)	22	(2.6)
Manage a class of students engaged in hands-on/project-based work	3	(0.8)	22	(3.1)	39	(3.0)	37	(2.7)
Have students work in cooperative learning groups	2	(1.6)	12	(2.2)	40	(3.6)	45	(3.6)
Listen/ask questions as students work in order to gauge their understanding	0	(0.4)	5	(1.6)	39	(3.6)	56	(3.4)
Use the textbook as a resource rather than the primary instructional tool	7	(2.4)	23	(2.7)	32	(2.8)	39	(2.8)
Teach groups that are heterogeneous in ability	2	(0.5)	17	(3.1)	45	(3.1)	36	(2.9)
Teach students that have limited English proficiency	47	(4.0)	27	(2.9)	18	(2.8)	8	(1.3)
Recognize and respond to student cultural diversity	6	(1.2)	26	(2.6)	40	(3.1)	28	(3.4)
Encourage students' interest in mathematics	0	(0.1)	11	(1.5)	39	(2.9)	50	(2.9)
Encourage participation of females in mathematics	0	(0.1)	3	(0.9)	32	(3.4)	65	(3.5)
Encourage participation of minorities in mathematics	3	(1.8)	8	(1.5)	34	(3.3)	54	(3.4)
Involve parents in the mathematics education of their children	8	(1.6)	41	(3.1)	34	(3.2)	16	(2.0)
Use calculators/computers for drill and practice	7	(2.1)	18	(2.5)	40	(2.8)	34	(2.7)
Use calculators/computers for mathematics learning games	6	(1.1)	24	(2.9)	42	(2.8)	28	(2.7)
Use calculators/computers to collect and/or analyze data	12	(2.2)	24	(2.9)	39	(3.2)	25	(2.9)
Use calculators/computers to demonstrate mathematics principles	14	(2.3)	29	(3.2)	37	(3.2)	20	(2.2)
Use calculators/computers for simulations and applications	20	(3.1)	32	(3.0)	31	(2.8)	16	(2.1)
Use the Internet in your mathematics teaching for general reference	34	(3.5)	32	(2.9)	21	(2.3)	13	(2.0)
Use the Internet in your mathematics teaching for data acquisition	41	(3.3)	31	(3.0)	18	(2.3)	10	(1.7)
Use the Internet in you mathematics teaching for collaborative projects with classes/individuals in other schools	54	(3.6)	29	(2.7)	13	(2.1)	5	(1.1)

Table MTQ 3.3
Grade 9–12 Mathematics Teachers' Perceptions of Their Preparation for Each of a Number of Tasks

	Percent of Teachers							
	Not Adequately Prepared		Somewhat Prepared		Fairly Well Prepared		Very Well Prepared	
Take students' prior understanding into account when planning curriculum and instruction	2	(0.9)	13	(1.3)	49	(2.0)	35	(1.9)
Develop students' conceptual understanding of mathematics	1	(0.8)	11	(1.5)	49	(2.0)	40	(1.8)
Provide deeper coverage of fewer mathematics concepts	4	(1.0)	20	(1.7)	45	(2.2)	31	(2.0)
Make connections between mathematics and other disciplines	4	(1.1)	28	(1.7)	45	(2.1)	23	(1.9)
Lead a class of students using investigative strategies	7	(0.9)	32	(2.0)	43	(2.0)	18	(1.5)
Manage a class of students engaged in hands-on/project-based work	7	(0.9)	24	(1.9)	45	(2.2)	24	(2.0)
Have students work in cooperative learning groups	3	(0.5)	21	(1.8)	42	(2.0)	33	(1.9)
Listen/ask questions as students work in order to gauge their understanding	0	(0.1)	8	(1.0)	43	(2.2)	49	(2.1)
Use the textbook as a resource rather than the primary instructional tool	4	(0.7)	25	(1.9)	39	(2.1)	32	(2.0)
Teach groups that are heterogeneous in ability	4	(0.6)	24	(1.9)	50	(2.2)	23	(1.6)
Teach students that have limited English proficiency	48	(2.0)	34	(1.7)	14	(1.3)	5	(0.7)
Recognize and respond to student cultural diversity	7	(1.0)	37	(2.1)	39	(2.1)	17	(1.6)
Encourage students' interest in mathematics	0	(0.1)	10	(1.2)	51	(1.9)	39	(2.0)
Encourage participation of females in mathematics	1	(0.2)	6	(0.9)	37	(1.9)	56	(1.9)
Encourage participation of minorities in mathematics	3	(0.6)	11	(1.3)	42	(1.9)	43	(1.7)
Involve parents in the mathematics education of their children	16	(1.4)	47	(2.1)	30	(1.9)	7	(0.9)
Use calculators/computers for drill and practice	2	(0.4)	12	(1.3)	42	(2.1)	44	(2.3)
Use calculators/computers for mathematics learning games	13	(1.1)	32	(1.9)	36	(2.1)	19	(1.9)
Use calculators/computers to collect and/or analyze data	8	(0.8)	26	(2.0)	37	(2.1)	29	(2.2)
Use calculators/computers to demonstrate mathematics principles	6	(0.7)	19	(1.8)	40	(1.8)	35	(2.1)
Use calculators/computers for simulations and applications	11	(1.1)	31	(1.8)	35	(1.8)	23	(1.9)
Use the Internet in your mathematics teaching for general reference	35	(1.8)	35	(1.9)	20	(1.6)	9	(1.4)
Use the Internet in your mathematics teaching for data acquisition	36	(1.8)	36	(1.9)	20	(1.7)	7	(1.2)
Use the Internet in you mathematics teaching for collaborative projects with classes/individuals in other schools	56	(2.0)	29	(1.8)	11	(1.1)	4	(1.1)

Table MTQ 4a
Degrees of Mathematics Teachers

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Bachelors	100	(0.0)	99	(1.5)	100	(0.0)
Masters	41	(2.6)	44	(3.7)	51	(2.2)
Doctorate	0	(0.2)	0	(0.1)	1	(0.5)

Table MTQ 4b
Subjects of Mathematics Teachers' Degrees

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Mathematics						
Bachelors	7	(1.2)	12	(1.4)	60	(2.0)
Masters	1	(0.5)	1	(0.3)	10	(1.2)
Doctorate	0	—*	0	—*	0	(0.1)
Computer Science						
Bachelors	2	(0.7)	1	(0.5)	4	(0.7)
Masters	0	(0.1)	0	(0.1)	1	(0.2)
Doctorate	0	(0.0)	0	(0.0)	0	(0.0)
Mathematics Education						
Bachelors	6	(1.0)	10	(1.2)	38	(2.1)
Masters	1	(0.6)	4	(0.6)	21	(1.5)
Doctorate	0	—*	0	—*	0	(0.1)
Science/Science Education						
Bachelors	8	(1.3)	8	(1.5)	12	(2.0)
Masters	2	(0.7)	3	(1.1)	2	(1.1)
Doctorate	0	—*	0	—*	1	(0.4)
Elementary Education						
Bachelors	83	(2.1)	63	(3.2)	5	(1.3)
Masters	26	(2.3)	19	(3.5)	1	(0.2)
Doctorate	0	(0.0)	0	(0.0)	0	(0.0)
Other Education						
Bachelors	18	(2.1)	14	(2.4)	10	(1.1)
Masters	16	(2.0)	13	(1.8)	15	(1.5)
Doctorate	0	(0.2)	0	(0.1)	0	(0.1)
Other Subject						
Bachelors	15	(1.8)	17	(2.6)	13	(1.5)
Masters	4	(1.0)	7	(2.2)	8	(1.1)
Doctorate	0	—*	0	—*	0	(0.1)

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.

Table MTQ 5
College Courses Completed by Mathematics Teachers

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Mathematics						
Mathematics for elementary school teachers	96	(1.0)	81	(2.7)	19	(1.8)
Mathematics for middle school teachers	5	(1.0)	28	(2.8)	26	(1.9)
Geometry for elementary/middle school teachers	21	(1.5)	28	(2.4)	17	(1.6)
College algebra/trigonometry/elementary function	42	(2.2)	56	(3.5)	80	(1.5)
Calculus	12	(1.7)	31	(2.5)	96	(0.9)
Advanced calculus	3	(0.8)	13	(1.5)	70	(2.0)
Real analysis	1	(0.5)	6	(1.0)	38	(2.0)
Differential equations	2	(0.8)	12	(1.5)	65	(2.0)
Geometry	32	(2.1)	37	(3.2)	82	(1.3)
Probability and statistics	33	(2.5)	51	(3.5)	86	(1.7)
Abstract algebra	5	(1.1)	12	(1.3)	64	(2.0)
Number theory	8	(1.5)	20	(2.6)	56	(2.1)
Linear algebra	9	(1.6)	16	(1.8)	81	(1.6)
Applications of mathematics/problem solving	21	(1.9)	23	(2.2)	37	(1.7)
History of mathematics	3	(0.7)	11	(1.5)	42	(1.9)
Discrete mathematics	1	(0.4)	7	(0.9)	37	(1.7)
Other upper division mathematics	5	(1.0)	17	(2.0)	59	(1.9)
Science/Computer Sciences						
Biological sciences	77	(2.2)	71	(2.9)	49	(2.1)
Chemistry	31	(2.3)	40	(3.3)	47	(2.0)
Physics	19	(1.9)	26	(2.8)	52	(2.1)
Physical science	51	(2.4)	49	(3.4)	23	(2.0)
Earth/space science	41	(2.4)	42	(3.6)	20	(1.8)
Engineering	1	(0.4)	4	(0.9)	15	(1.5)
Computer programming	12	(1.5)	29	(2.8)	63	(2.1)
Other computer science	21	(1.8)	28	(3.2)	28	(2.1)
Education						
General methods of teaching	95	(1.0)	93	(1.5)	90	(1.2)
Methods of teaching mathematics	79	(2.1)	80	(2.6)	77	(2.2)
Instructional uses of computers/other technologies	37	(2.1)	44	(3.3)	43	(2.2)
Supervised student teaching in mathematics	38	(2.7)	42	(3.8)	70	(2.0)

Table MTQ 6.1
Number of College Semester† Courses
Completed by Grade K–4 Mathematics Teachers

	Percent of Teachers													
	Mathematics education		Calculus		Statistics		Advanced calculus		All other mathematics courses		Computer science		Science	
0	6	(1.1)	87	(1.7)	61	(2.5)	96	(1.0)	1	(0.4)	56	(2.2)	6	(1.3)
1	29	(2.0)	10	(1.5)	30	(2.3)	3	(0.8)	29	(2.0)	24	(1.8)	14	(1.8)
2	24	(1.9)	2	(0.7)	6	(1.0)	0	(0.3)	22	(1.9)	13	(1.5)	28	(2.2)
3	13	(1.5)	1	(0.4)	2	(0.6)	0	(0.2)	19	(1.9)	3	(0.8)	19	(1.9)
4	13	(1.5)	0	—*	1	(0.6)	0	(0.2)	14	(1.8)	2	(0.6)	13	(1.8)
5	2	(0.6)	0	—*	0	—*	0	—*	6	(1.0)	0	(0.2)	7	(1.3)
6	6	(0.9)	0	(0.2)	0	(0.1)	0	—*	4	(0.9)	2	(0.5)	7	(1.2)
7	2	(0.8)	0	—*	0	—*	0	—*	2	(0.7)	0	(0.2)	1	(0.4)
8	1	(0.6)	0	—*	0	—*	0	—*	1	(0.6)	0	—*	1	(0.6)
>8	4	(0.9)	0	—*	0	—*	0	—*	1	(0.5)	0	(0.2)	4	(0.9)

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.
† Questionnaire responses for Quarter Courses have been translated into Semester Courses.

Table MTQ 6.2
Number of College Semester† Courses
Completed by Grade 5–8 Mathematics Teachers

	Percent of Teachers													
	Mathematics education		Calculus		Statistics		Advanced calculus		All other mathematics courses		Computer science		Science	
0	9	(1.7)	69	(2.5)	46	(3.3)	88	(1.6)	0	(0.2)	40	(3.2)	10	(1.9)
1	21	(2.6)	11	(1.7)	35	(2.8)	7	(1.4)	20	(3.2)	26	(3.3)	12	(1.9)
2	24	(2.8)	9	(1.3)	12	(1.8)	4	(0.6)	20	(2.5)	17	(2.8)	24	(3.2)
3	15	(2.0)	4	(0.7)	4	(1.0)	1	(0.3)	15	(2.3)	8	(2.0)	19	(2.4)
4	10	(1.6)	3	(0.7)	2	(0.5)	0	(0.1)	9	(1.6)	2	(0.5)	13	(2.6)
5	4	(1.8)	0	(0.2)	0	(0.0)	0	(0.1)	7	(1.1)	2	(0.7)	6	(1.2)
6	6	(1.2)	2	(1.1)	1	(0.3)	0	(0.1)	6	(1.2)	2	(1.0)	4	(1.3)
7	1	(1.1)	0	(0.1)	0	(0.0)	0	—*	5	(1.3)	0	(0.2)	0	(0.1)
8	2	(0.9)	0	(0.1)	0	(0.1)	0	—*	6	(1.5)	1	(0.4)	0	(0.1)
>8	8	(1.9)	1	(0.2)	0	(0.1)	0	(0.1)	12	(1.6)	2	(0.6)	11	(2.3)

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.
† Questionnaire responses for Quarter Courses have been translated into Semester Courses.

Table MTQ 6.3
Number of College Semester† Courses
Completed by Grade 9–12 Mathematics Teachers

	Percent of Teachers													
	Mathematics education		Calculus		Statistics		Advanced calculus		All other mathematics courses		Computer science		Science	
0	17	(1.7)	4	(0.9)	12	(1.4)	37	(2.2)	1	(0.7)	21	(1.7)	20	(1.6)
1	17	(1.4)	8	(1.0)	46	(2.1)	34	(1.9)	1	(0.4)	25	(1.8)	17	(1.4)
2	21	(1.5)	24	(2.0)	23	(1.8)	17	(1.4)	2	(0.6)	23	(2.2)	22	(1.6)
3	10	(1.0)	29	(1.8)	10	(1.3)	5	(0.7)	2	(0.5)	11	(1.0)	19	(1.5)
4	10	(1.2)	18	(1.6)	4	(0.8)	3	(0.4)	4	(1.0)	6	(0.8)	9	(1.0)
5	3	(0.7)	4	(1.2)	1	(0.2)	0	(0.2)	5	(0.9)	2	(0.4)	6	(1.5)
6	8	(1.1)	4	(0.6)	2	(0.4)	1	(0.3)	12	(1.5)	3	(0.6)	3	(1.0)
7	1	(0.5)	1	(0.3)	0	(0.1)	0	(0.1)	10	(1.1)	2	(0.5)	0	(0.1)
8	1	(0.3)	2	(0.5)	0	(0.2)	1	(0.3)	10	(1.2)	1	(0.3)	0	(0.1)
>8	12	(1.1)	6	(0.8)	1	(0.4)	1	(0.4)	52	(1.9)	5	(0.8)	3	(0.9)

† Questionnaire responses for Quarter Courses have been translated into Semester Courses.

Table MTQ 7a
Percentage of Mathematics Courses Completed by Mathematics Teachers at a Two-Year College/Community College/Technical School

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
0%	73	(2.2)	72	(3.0)	77	(2.1)
10%	4	(0.9)	4	(0.9)	8	(1.3)
20%	3	(0.8)	4	(1.3)	4	(0.7)
30%	3	(0.9)	2	(0.8)	3	(0.7)
40%	1	(0.3)	3	(1.1)	4	(1.2)
50%	11	(1.7)	9	(2.3)	1	(0.4)
60%	2	(0.6)	2	(0.8)	0	(0.3)
70%	1	(0.6)	1	(0.3)	1	(0.5)
80%	2	(0.7)	0	(0.2)	0	(0.1)
90%	0	(0.2)	0	(0.3)	0	(0.4)
100%	1	(0.6)	3	(1.7)	0	(0.2)

Table MTQ 7b
Percentage of Mathematics Courses Completed by Mathematics Teachers at a Four-Year College/University

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
0%	1	(0.6)	3	(1.7)	0	(0.2)
10%	0	(0.2)	0	(0.3)	0	(0.4)
20%	2	(0.7)	0	(0.2)	0	(0.1)
30%	1	(0.6)	1	(0.3)	1	(0.5)
40%	2	(0.6)	2	(0.8)	0	(0.3)
50%	11	(1.6)	9	(2.3)	1	(0.4)
60%	1	(0.3)	2	(1.0)	4	(1.2)
70%	3	(0.9)	3	(0.8)	3	(0.6)
80%	3	(0.8)	4	(1.3)	4	(0.7)
90%	4	(0.8)	5	(0.9)	8	(1.3)
100%	73	(2.2)	72	(3.0)	77	(2.1)

Table MTQ 8
Mathematics Teachers' Most Recent College Coursework in Mathematics or The Teaching of Mathematics

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Mathematics						
1996–2000	24	(1.8)	23	(3.0)	30	(2.2)
1990–1995	24	(2.0)	29	(3.3)	26	(1.8)
Prior to 1990	52	(2.2)	48	(3.8)	44	(1.8)
The Teaching of Mathematics						
1996–2000	29	(2.2)	28	(3.0)	28	(1.9)
1990–1995	24	(2.1)	21	(2.7)	21	(1.5)
Prior to 1990	40	(2.1)	39	(3.8)	37	(2.0)
Never	7	(1.2)	11	(2.0)	14	(1.6)

Table MTQ 9
Time Spent by Mathematics Teachers on In-Service Education in Mathematics or The Teaching of Mathematics

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
In Last 12 Months						
None	30	(2.3)	26	(3.1)	13	(1.6)
Less than 6 hours	34	(2.2)	25	(3.0)	21	(1.5)
6–15 hours	24	(2.5)	30	(2.4)	32	(2.0)
16–35 hours	8	(1.2)	10	(1.7)	20	(1.3)
More than 35 hours	4	(1.0)	9	(1.6)	15	(1.6)
In Last 3 Years						
None	14	(1.7)	14	(3.3)	7	(1.3)
Less than 6 hours	22	(2.2)	15	(2.7)	8	(1.4)
6–15 hours	32	(2.2)	29	(3.0)	17	(1.7)
16–35 hours	18	(1.7)	19	(2.3)	25	(1.8)
More than 35 hours	14	(1.7)	23	(2.5)	43	(2.2)

Table MTQ 10
Mathematics Teachers Participating in Various Professional Activities in Last Twelve Months

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Taught any in-service workshops in mathematics or mathematics teaching	4	(0.9)	13	(2.0)	14	(1.2)
Mentored another teacher as part of a formal arrangement that is recognized or supported by the school or district, not including supervision of student teachers	16	(1.6)	17	(2.1)	19	(1.4)
Received any local, state, or national grants or awards for mathematics teaching	2	(0.7)	4	(0.9)	7	(0.8)
Served on a school or district mathematics curriculum committee	14	(1.5)	29	(2.5)	38	(2.1)
Served on a school or district mathematics textbook selection committee	15	(1.8)	28	(3.0)	41	(2.2)

Table MTQ 11
Mathematics Teachers Participating in Various Professional Development Activities in Past Three Years

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Taken a formal college/university mathematics course	11	(1.3)	16	(1.9)	18	(1.8)
Taken a formal college/university course in the teaching of mathematics	18	(2.0)	21	(3.0)	18	(1.5)
Observed other teachers teaching mathematics as part of your own professional development	45	(2.3)	50	(3.6)	53	(2.1)
Met with a local group teachers on a regular basis to study/discuss mathematics teaching issues on a regular basis	35	(1.9)	47	(2.9)	50	(2.0)
Collaborated on mathematics teaching issues with a group of teachers at a distance using telecommunications	5	(1.0)	7	(1.3)	9	(1.4)
Served as a mentor and/or peer coach in mathematics teaching, as part of a formal arrangement that is recognized or supported by the school or district	13	(1.7)	12	(1.9)	20	(1.4)
Attended a workshop on mathematics teaching	68	(2.6)	74	(2.8)	80	(2.0)
Attended a national or state mathematics teacher association meeting	7	(1.4)	21	(2.3)	40	(2.4)
Applied or applying for certification from the National Board for Professional Teaching Standards (NBPTS)	3	(0.8)	2	(0.7)	3	(1.0)
Received certification from the National Board for Professional Teaching Standards (NBPTS)	2	(0.6)	1	(0.5)	2	(1.0)

Table MTQ 12a.1
Grade K–4 Mathematics Teachers' Opinions of Their Need for Professional Development Three Years Ago

	Percent of Teachers							
	None Needed		Minor Need		Moderate Need		Substantial Need	
Deepening my own mathematics content knowledge	15	(1.7)	40	(2.1)	36	(1.9)	9	(1.2)
Understanding student thinking in mathematics	11	(1.7)	43	(2.4)	36	(2.1)	10	(1.3)
Learning how to use inquiry/investigation-oriented teaching strategies	7	(1.4)	31	(2.5)	44	(2.5)	18	(1.8)
Learning how to use technology in mathematics instruction	3	(1.0)	17	(1.9)	44	(2.7)	35	(2.2)
Learning how to assess student learning in mathematics	16	(1.7)	37	(2.3)	39	(2.2)	8	(1.3)
Learning how to teach mathematics in a class that includes students with special needs	9	(1.5)	33	(2.4)	35	(2.5)	22	(2.0)

Table MTQ 12a.2
Grade 5–8 Mathematics Teachers' Opinions of Their Need for Professional Development Three Years Ago

	Percent of Teachers							
	None Needed		Minor Need		Moderate Need		Substantial Need	
Deepening my own mathematics content knowledge	19	(2.9)	41	(3.1)	34	(2.8)	6	(1.3)
Understanding student thinking in mathematics	14	(3.4)	35	(2.9)	44	(3.5)	7	(1.6)
Learning how to use inquiry/investigation-oriented teaching strategies	8	(2.4)	30	(2.7)	46	(3.1)	17	(3.0)
Learning how to use technology in mathematics instruction	3	(1.1)	14	(1.9)	49	(3.2)	34	(3.6)
Learning how to assess student learning in mathematics	18	(3.2)	42	(3.0)	31	(3.0)	9	(1.8)
Learning how to teach mathematics in a class that includes students with special needs	8	(1.9)	32	(3.1)	40	(2.8)	20	(3.2)

Table MTQ 12a.3
Grade 9–12 Mathematics Teachers' Opinions of Their Need for Professional Development Three Years Ago

	Percent of Teachers							
	None Needed		Minor Need		Moderate Need		Substantial Need	
Deepening my own mathematics content knowledge	21	(1.4)	48	(2.4)	27	(2.3)	5	(1.4)
Understanding student thinking in mathematics	15	(1.5)	45	(2.3)	33	(2.3)	7	(1.5)
Learning how to use inquiry/investigation-oriented teaching strategies	9	(0.8)	38	(2.2)	43	(1.9)	11	(1.4)
Learning how to use technology in mathematics instruction	5	(1.3)	28	(1.8)	41	(1.8)	26	(1.9)
Learning how to assess student learning in mathematics	16	(1.5)	51	(1.9)	27	(1.8)	5	(0.9)
Learning how to teach mathematics in a class that includes students with special needs	7	(0.8)	38	(2.3)	38	(2.0)	17	(1.6)

Table MTQ 12b.1
Grade K–4 Mathematics Teachers' Opinions of Professional Development Emphasis

	Percent of Teachers									
	Not at all								To a great extent	
	1		2		3		4		5	
Deepening my own mathematics content knowledge	24	(2.4)	24	(2.0)	33	(2.4)	13	(1.9)	7	(1.1)
Understanding student thinking in mathematics	15	(1.8)	19	(2.3)	34	(2.3)	21	(1.9)	11	(1.5)
Learning how to use inquiry/investigation-oriented teaching strategies	18	(1.8)	15	(1.8)	35	(2.6)	22	(2.2)	10	(1.3)
Learning how to use technology in mathematics instruction	24	(2.0)	29	(2.2)	24	(2.1)	15	(1.7)	7	(1.3)
Learning how to assess student learning in mathematics	17	(1.7)	19	(2.1)	35	(2.4)	22	(2.0)	8	(1.2)
Learning how to teach mathematics in a class that includes students with special needs	31	(2.1)	29	(2.2)	26	(2.2)	11	(1.5)	3	(0.8)

Table MTQ 12b.2
Grade 5–8 Mathematics Teachers' Opinions of Professional Development Emphasis

	Percent of Teachers									
	Not at all								To a great extent	
	1		2		3		4		5	
Deepening my own mathematics content knowledge	28	(3.5)	21	(2.3)	32	(2.9)	11	(1.8)	9	(1.8)
Understanding student thinking in mathematics	13	(2.4)	20	(2.6)	33	(2.9)	22	(2.4)	12	(1.8)
Learning how to use inquiry/investigation-oriented teaching strategies	18	(2.7)	19	(3.1)	31	(3.1)	22	(2.8)	10	(2.1)
Learning how to use technology in mathematics instruction	20	(3.0)	24	(2.7)	27	(3.1)	19	(2.8)	10	(2.0)
Learning how to assess student learning in mathematics	13	(2.3)	24	(3.5)	35	(3.4)	22	(2.5)	6	(1.4)
Learning how to teach mathematics in a class that includes students with special needs	30	(3.6)	30	(3.0)	26	(3.4)	10	(1.7)	3	(1.0)

Table MTQ 12b.3
Grade 9–12 Mathematics Teachers' Opinions of Professional Development Emphasis

	Percent of Teachers									
	Not at all								To a great extent	
	1		2		3		4		5	
Deepening my own mathematics content knowledge	31	(2.0)	26	(1.7)	27	(2.0)	9	(0.9)	8	(1.3)
Understanding student thinking in mathematics	18	(1.7)	27	(1.7)	32	(1.9)	17	(1.5)	6	(1.2)
Learning how to use inquiry/investigation-oriented teaching strategies	16	(1.8)	24	(1.6)	32	(1.9)	22	(1.5)	6	(0.7)
Learning how to use technology in mathematics instruction	10	(1.6)	17	(1.9)	26	(1.6)	29	(1.9)	18	(1.8)
Learning how to assess student learning in mathematics	18	(1.9)	29	(2.0)	31	(2.0)	18	(1.5)	5	(1.2)
Learning how to teach mathematics in a class that includes students with special needs	36	(1.9)	37	(2.2)	17	(1.6)	6	(0.8)	4	(1.2)

Table MTQ 12c.1
Grade K–4 Mathematics Teachers Rating
Impact of Their Professional Development

	Percent of Teachers					
	Little or no impact		Confirmed what I was already doing		Caused me to change my teaching practices	
Deepening my own mathematics content knowledge	32	(2.4)	52	(3.0)	15	(1.9)
Understanding student thinking in mathematics	24	(2.2)	55	(2.6)	21	(1.9)
Learning how to use inquiry/investigation-oriented teaching strategies	32	(2.3)	40	(2.5)	28	(2.3)
Learning how to use technology in mathematics instruction	52	(2.4)	27	(2.4)	21	(2.2)
Learning how to assess student learning in mathematics	28	(2.2)	53	(2.8)	19	(2.0)
Learning how to teach mathematics in a class that includes students with special needs	47	(2.4)	40	(2.4)	13	(1.7)

Table MTQ 12c.2
Grade 5–8 Mathematics Teachers Rating
Impact of Their Professional Development

	Percent of Teachers					
	Little or no impact		Confirmed what I was already doing		Caused me to change my teaching practices	
Deepening my own mathematics content knowledge	31	(2.8)	55	(3.0)	13	(2.3)
Understanding student thinking in mathematics	22	(2.9)	59	(3.3)	20	(2.8)
Learning how to use inquiry/investigation-oriented teaching strategies	32	(3.2)	42	(3.0)	26	(3.0)
Learning how to use technology in mathematics instruction	46	(3.3)	28	(2.7)	26	(2.4)
Learning how to assess student learning in mathematics	28	(2.9)	54	(3.2)	18	(2.1)
Learning how to teach mathematics in a class that includes students with special needs	48	(3.2)	37	(3.3)	15	(2.5)

Table MTQ12c.3
Grade 9–12 Mathematics Teachers Rating
Impact of Their Professional Development

	Percent of Teachers					
	Little or no impact		Confirmed what I was already doing		Caused me to change my teaching practices	
Deepening my own mathematics content knowledge	38	(1.8)	50	(2.1)	12	(1.5)
Understanding student thinking in mathematics	34	(2.1)	53	(2.3)	14	(1.5)
Learning how to use inquiry/investigation-oriented teaching strategies	35	(2.1)	44	(2.0)	22	(1.6)
Learning how to use technology in mathematics instruction	30	(1.9)	32	(1.9)	39	(2.0)
Learning how to assess student learning in mathematics	33	(2.2)	52	(2.0)	15	(1.2)
Learning how to teach mathematics in a class that includes students with special needs	57	(2.1)	31	(1.9)	12	(1.2)

Table MTQ 13a
Mathematics Teachers in Self-Contained Classrooms

	Percent of Teachers	
Grades K–4	95	(0.8)
Grades 5–8	51	(3.9)
Grades 9–12	5	(1.2)

Table MTQ 13b
Grade K–4 Mathematics Teachers in Self-Contained Classrooms Perceptions of Their Qualifications

	Percent of Teachers					
	Not Well Qualified		Adequately Qualified		Very Well Qualified	
Life science	10	(1.4)	60	(2.4)	31	(2.3)
Earth science	9	(1.4)	64	(2.3)	26	(2.3)
Physical science	16	(1.9)	63	(2.4)	21	(2.0)
Mathematics	1	(0.4)	46	(2.4)	53	(2.4)
Reading/Language Arts	0	(0.2)	22	(2.0)	77	(2.0)
Social Studies	2	(0.6)	48	(2.3)	51	(2.3)

Table MTQ 13c
Number of Days per Week and Minutes per Day Grade K–4 Self-Contained Mathematics Classes Spend on Various Subjects

	Average Number of Days per Week		Average Number of Minutes	
Mathematics	4.9	(0.0)	55	(1.0)
Science	3.0	(0.1)	22	(0.7)
Social Studies	3.1	(0.1)	23	(0.9)
Reading/Language Arts	5.0	(0.0)	106	(2.4)

Table MTQ 14
Mathematics Teachers in Non-Self-Contained Classrooms Descriptions of Their Class Organization

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Departmentalized Instruction	33	(11.4)	72	(3.5)	99	(0.3)
Elementary Enrichment Class	16	(6.9)	2	(0.9)	0	—*
Team Teaching	51	(11.3)	27	(3.7)	1	(0.3)

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.

There is no table for STQ 15a.1.

Table MTQ 15a.2
Grade 5–8 Mathematics Teachers' Perceptions of Their Qualifications to Teach Each of a Number of Subjects

	Percent of Teachers					
	Not Well Qualified		Adequately Qualified		Very Well Qualified	
Numeration and number theory	1	(0.5)	23	(3.4)	76	(3.4)
Computation	0	(0.1)	10	(1.9)	90	(1.9)
Estimation	0	(0.1)	17	(2.8)	83	(2.8)
Measurement	1	(0.5)	19	(3.0)	80	(3.1)
Pre-algebra	3	(1.4)	22	(3.8)	75	(4.0)
Algebra	12	(2.3)	40	(4.0)	49	(3.6)
Patterns and relationships	1	(0.5)	27	(3.8)	72	(3.8)
Geometry and spatial sense	3	(0.8)	41	(4.2)	57	(4.3)
Functions and pre-calculus concepts	50	(3.9)	31	(3.4)	18	(2.2)
Data collection and analysis	3	(0.7)	42	(3.4)	55	(3.5)
Probability	5	(1.2)	50	(3.1)	45	(3.0)
Statistics	41	(4.1)	42	(4.1)	18	(2.3)
Topics from discrete mathematics	61	(3.9)	31	(4.0)	8	(1.8)
Mathematical structures	68	(4.1)	25	(3.9)	7	(1.9)
Calculus	78	(2.4)	18	(2.4)	4	(0.9)
Technology in support of mathematics	35	(3.7)	47	(4.4)	18	(2.4)

Table MTQ 15a.3
Grade 9–12 Mathematics Teachers' Perceptions of Their Qualifications to Teach Each of a Number of Subjects

	Percent of Teachers					
	Not Well Qualified		Adequately Qualified		Very Well Qualified	
Numeration and number theory	6	(0.7)	30	(2.1)	64	(2.2)
Computation	1	(0.2)	11	(1.4)	88	(1.5)
Estimation	1	(0.2)	14	(1.6)	85	(1.7)
Measurement	1	(0.2)	14	(1.7)	85	(1.7)
Pre-algebra	1	(0.2)	5	(1.0)	94	(1.1)
Algebra	0	(0.2)	5	(1.1)	94	(1.1)
Patterns and relationships	1	(0.3)	24	(1.9)	75	(2.0)
Geometry and spatial sense	4	(0.8)	26	(2.0)	70	(2.3)
Functions and pre-calculus concepts	6	(0.9)	34	(2.0)	61	(2.0)
Data collection and analysis	9	(1.1)	45	(2.5)	46	(2.5)
Probability	10	(1.2)	48	(1.9)	42	(2.0)
Statistics	23	(1.6)	51	(2.2)	26	(2.0)
Topics from discrete mathematics	43	(1.8)	41	(1.7)	16	(1.5)
Mathematical structures	47	(2.1)	41	(1.9)	12	(1.4)
Calculus	39	(1.9)	36	(2.0)	24	(1.8)
Technology in support of mathematics	23	(1.9)	48	(2.1)	29	(2.1)

There is no table for MTQ 15b.

There is no table for MTQ 16.

There is no table for MTQ 17a.

There is no table for MTQ 17b.

Table MTQ 18a
Average Number of Students in Mathematics Classes

	Average Number of Students	
Grades K–4	22.0	(0.3)
Grades 5–8	22.9	(0.5)
Grades 9–12	21.4	(0.3)

Table MTQ 18b
Race/Ethnicity of Students in Mathematics Classes

	Percent of Students					
	Grades K–4		Grades 5–8		Grades 9–12	
American Indian or Alaskan Native	1	(0.4)	1	(0.4)	1	(0.4)
Asian	4	(0.9)	3	(0.5)	4	(0.5)
Black or African-American	15	(1.8)	16	(1.8)	13	(1.1)
Hispanic or Latino	14	(1.8)	11	(1.2)	11	(0.9)
Native Hawaiian or Other Pacific Islander	0	(0.1)	1	(0.3)	1	(0.2)
White	66	(2.6)	68	(2.3)	70	(1.7)

There is no table for MTQ 19a.

Table MTQ 19b
Calendar Duration of Mathematics Classes

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Year	97	(3.0)	95	(1.7)	75	(1.8)
Semester	3	(3.0)	4	(1.7)	24	(1.7)
Quarter	0	(0.0)	1	(0.4)	1	(0.6)

Table MTQ 20
Students Assigned to Mathematics Classes by Ability Level

	Percent of Classes	
Grades K–4	10	(1.6)
Grades 5–8	46	(2.2)
Grades 9–12	65	(2.0)

Table MTQ 21
Ability Grouping of Students in Mathematics Classes

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Fairly homogeneous and low in ability	6	(1.2)	12	(1.4)	17	(1.3)
Fairly homogeneous and average in ability	21	(1.9)	26	(2.1)	31	(1.6)
Fairly homogeneous and high in ability	5	(1.0)	18	(2.1)	26	(1.8)
Heterogeneous, with a mixture of two or more ability levels	68	(2.2)	44	(2.4)	26	(1.9)

Table MTQ 22
Mathematics Classes with One or More Students with Special Needs

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Limited English Proficiency	34	(3.0)	20	(1.7)	16	(1.3)
Learning Disabled	47	(2.3)	47	(2.6)	31	(1.8)
Mentally Handicapped	7	(1.3)	2	(0.5)	2	(0.5)
Physically Handicapped	6	(1.0)	4	(0.9)	4	(0.6)

Table MTQ 23.1
Emphasis Given in Grade K–4 Mathematics Classes to Various Instructional Objectives

	Percent of Classes							
	None		Minimal Emphasis		Moderate Emphasis		Heavy Emphasis	
Increase students' interest in mathematics	0	(0.2)	4	(0.9)	43	(2.5)	53	(2.5)
Learn mathematical concepts	0	(0.2)	1	(0.5)	11	(1.3)	88	(1.4)
Learn mathematical algorithms/procedures	8	(1.3)	15	(1.8)	36	(2.1)	41	(2.1)
Develop students' computational skills	1	(0.4)	5	(0.8)	30	(2.2)	64	(2.3)
Learn how to solve problems	0	(0.2)	2	(0.6)	18	(1.7)	80	(1.8)
Learn to reason mathematically	0	(0.2)	4	(1.1)	30	(2.2)	66	(2.2)
Learn how mathematics ideas connect with one another	1	(0.4)	9	(1.4)	34	(2.5)	57	(2.3)
Prepare for further study in mathematics	2	(0.7)	12	(1.7)	42	(2.5)	44	(2.4)
Understand the logical structure of mathematics	4	(1.0)	21	(1.8)	48	(2.6)	27	(2.3)
Learn about the history and nature of mathematics	28	(2.1)	55	(2.4)	15	(1.6)	3	(0.7)
Learn to explain ideas in mathematics effectively	2	(0.8)	18	(2.1)	46	(2.3)	34	(2.1)
Learn how to apply mathematics in business and industry	27	(2.1)	41	(2.5)	22	(1.9)	10	(1.4)
Learn to perform computations with speed and accuracy	7	(1.1)	14	(1.6)	40	(2.3)	39	(2.3)
Prepare for standardized tests	7	(0.9)	20	(2.1)	37	(2.4)	36	(2.5)

Table MTQ 23.2
Emphasis Given in Grade 5–8 Mathematics Classes to Various Instructional Objectives

	Percent of Classes							
	None		Minimal Emphasis		Moderate Emphasis		Heavy Emphasis	
Increase students' interest in mathematics	0	(0.1)	9	(2.0)	48	(2.8)	43	(2.4)
Learn mathematical concepts	0	(0.0)	0	(0.2)	12	(1.9)	88	(1.9)
Learn mathematical algorithms/procedures	2	(0.6)	8	(1.4)	35	(2.7)	55	(2.7)
Develop students' computational skills	1	(0.6)	11	(1.9)	27	(2.1)	61	(2.4)
Learn how to solve problems	0	(0.0)	0	(0.2)	18	(2.2)	82	(2.2)
Learn to reason mathematically	0	(0.0)	3	(0.9)	26	(2.4)	72	(2.6)
Learn how mathematics ideas connect with one another	0	(0.2)	4	(0.9)	37	(2.1)	59	(2.3)
Prepare for further study in mathematics	2	(0.6)	9	(1.4)	39	(2.1)	50	(2.2)
Understand the logical structure of mathematics	1	(0.2)	18	(2.2)	48	(2.7)	33	(2.3)
Learn about the history and nature of mathematics	14	(1.7)	59	(2.2)	24	(1.8)	3	(0.7)
Learn to explain ideas in mathematics effectively	2	(0.6)	11	(1.9)	45	(2.6)	42	(2.5)
Learn how to apply mathematics in business and industry	6	(1.1)	34	(2.4)	42	(2.7)	18	(1.9)
Learn to perform computations with speed and accuracy	3	(1.2)	18	(2.0)	44	(2.9)	35	(2.6)
Prepare for standardized tests	3	(0.8)	19	(2.3)	41	(2.5)	38	(2.6)

Table MTQ 23.3
Emphasis Given in Grade 9–12 Mathematics Classes to Various Instructional Objectives

	Percent of Classes							
	None		Minimal Emphasis		Moderate Emphasis		Heavy Emphasis	
Increase students' interest in mathematics	0	(0.2)	11	(1.0)	60	(2.0)	29	(1.8)
Learn mathematical concepts	0	(0.0)	1	(0.6)	14	(1.3)	85	(1.4)
Learn mathematical algorithms/procedures	1	(0.5)	8	(1.2)	34	(1.9)	57	(1.9)
Develop students' computational skills	2	(0.5)	22	(1.8)	39	(1.7)	37	(1.9)
Learn how to solve problems	0	(0.0)	1	(0.4)	25	(1.7)	74	(1.7)
Learn to reason mathematically	0	(0.0)	2	(0.4)	26	(1.8)	72	(1.8)
Learn how mathematics ideas connect with one another	1	(0.6)	5	(0.9)	39	(1.7)	55	(1.8)
Prepare for further study in mathematics	1	(0.4)	9	(1.1)	28	(1.7)	61	(1.9)
Understand the logical structure of mathematics	2	(0.5)	16	(1.3)	45	(1.6)	38	(1.6)
Learn about the history and nature of mathematics	15	(1.9)	61	(1.9)	21	(1.5)	3	(0.5)
Learn to explain ideas in mathematics effectively	1	(0.4)	15	(1.6)	52	(2.2)	32	(2.0)
Learn how to apply mathematics in business and industry	5	(0.9)	34	(1.8)	44	(1.8)	16	(1.4)
Learn to perform computations with speed and accuracy	8	(1.5)	30	(1.6)	42	(2.0)	20	(1.6)
Prepare for standardized tests	5	(1.2)	24	(1.6)	43	(2.1)	28	(1.9)

Table MTQ 24.1
Grade K–4 Mathematics Teachers Report Using Various Strategies in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Introduce content through formal presentations	1	(0.2)	2	(0.7)	15	(1.7)	45	(2.5)	37	(2.5)
Pose open-ended questions	0	(0.2)	2	(0.7)	20	(1.9)	45	(2.3)	33	(2.5)
Engage the whole class in discussions	0	—*	0	(0.2)	6	(1.1)	34	(2.2)	60	(2.5)
Require students to explain their reasoning when giving an answer	0	—*	1	(0.5)	10	(1.7)	37	(2.4)	52	(2.3)
Ask students to explain concepts to one another	1	(0.3)	8	(1.2)	26	(2.2)	46	(2.4)	20	(2.1)
Ask students to consider alternative explanations	0	(0.3)	7	(1.2)	25	(2.3)	45	(3.1)	23	(1.9)
Ask students to use multiple representations	5	(0.9)	14	(1.6)	30	(2.3)	37	(2.1)	14	(1.5)
Allow students to work at their own pace	1	(0.1)	3	(1.1)	14	(1.6)	33	(2.2)	50	(2.5)
Help students see connections between mathematics and other disciplines	1	(0.4)	7	(1.2)	28	(2.0)	41	(2.6)	23	(1.9)
Assign mathematics homework	3	(0.9)	7	(1.3)	12	(1.6)	35	(2.0)	43	(2.4)
Read and comment on the reflections students have written	22	(2.3)	22	(2.1)	26	(2.2)	22	(2.2)	7	(1.1)

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.

Table MTQ 24.2
Grade 5–8 Mathematics Teachers Report
Using Various Strategies in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Introduce content through formal presentations	1	(0.4)	4	(1.2)	11	(1.9)	41	(2.4)	43	(2.4)
Pose open-ended questions	0	(0.2)	3	(0.5)	20	(2.0)	45	(2.4)	32	(2.2)
Engage the whole class in discussions	0	—*	2	(0.6)	13	(1.8)	40	(2.3)	45	(2.5)
Require students to explain their reasoning when giving an answer	0	—*	0	(0.2)	8	(1.3)	36	(2.5)	56	(2.8)
Ask students to explain concepts to one another	0	—*	8	(1.6)	20	(1.9)	48	(2.9)	24	(1.9)
Ask students to consider alternative explanations	0	(0.2)	4	(0.9)	20	(2.1)	48	(2.4)	28	(2.0)
Ask students to use multiple representations	1	(0.5)	12	(1.6)	41	(2.3)	35	(2.4)	10	(1.1)
Allow students to work at their own pace	2	(0.9)	11	(1.3)	22	(2.4)	36	(2.2)	30	(3.0)
Help students see connections between mathematics and other disciplines	0	(0.1)	6	(1.0)	32	(2.2)	45	(2.6)	17	(2.0)
Assign mathematics homework	0	(0.1)	0	(0.2)	2	(0.5)	23	(2.2)	75	(2.4)
Read and comment on the reflections students have written	27	(2.3)	26	(2.3)	26	(1.8)	14	(1.7)	6	(1.5)

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.

Table MTQ 24.3
Grade 9–12 Mathematics Teachers Report
Using Various Strategies in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Introduce content through formal presentations	0	(0.3)	3	(0.8)	7	(0.9)	40	(1.9)	49	(1.9)
Pose open-ended questions	0	(0.2)	7	(2.0)	23	(1.6)	41	(2.0)	29	(1.7)
Engage the whole class in discussions	0	(0.2)	6	(1.4)	21	(1.6)	38	(1.7)	35	(1.9)
Require students to explain their reasoning when giving an answer	0	(0.1)	2	(0.7)	12	(1.6)	40	(1.7)	46	(2.3)
Ask students to explain concepts to one another	0	(0.2)	6	(0.8)	24	(1.5)	50	(1.7)	20	(1.4)
Ask students to consider alternative explanations	0	(0.1)	4	(0.7)	28	(2.1)	50	(2.2)	17	(1.4)
Ask students to use multiple representations	1	(0.4)	14	(1.2)	35	(2.0)	37	(1.9)	13	(1.0)
Allow students to work at their own pace	6	(1.3)	18	(1.4)	28	(1.8)	33	(1.7)	16	(1.1)
Help students see connections between mathematics and other disciplines	1	(0.3)	12	(1.7)	40	(1.8)	36	(1.7)	12	(1.1)
Assign mathematics homework	0	(0.1)	1	(0.4)	2	(0.4)	16	(1.9)	80	(1.9)
Read and comment on the reflections students have written	44	(1.9)	31	(1.8)	16	(1.8)	7	(0.9)	2	(0.3)

Table MTQ 25.1
Grade K–4 Mathematics Teachers Report
Various Activities in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Listen and take notes during presentation by teacher	49	(2.6)	17	(1.9)	14	(1.9)	10	(1.6)	10	(1.5)
Work in groups	0	(0.2)	2	(0.6)	27	(2.3)	54	(2.5)	17	(1.6)
Read from a mathematics textbook in class	33	(2.3)	11	(1.6)	16	(1.7)	24	(2.0)	16	(1.9)
Read other mathematics-related materials in class	15	(1.8)	20	(2.0)	39	(2.3)	22	(1.9)	5	(1.1)
Engage in mathematical activities using concrete materials	0	(0.2)	1	(0.3)	14	(1.9)	43	(2.5)	42	(2.4)
Practice routine computations/algorithms	6	(1.2)	5	(1.1)	12	(1.6)	41	(2.1)	36	(2.3)
Review homework/worksheet assignments	8	(1.1)	7	(1.2)	15	(1.8)	35	(2.7)	36	(2.3)
Follow specific instructions in an activity or investigation	0	(0.3)	5	(0.8)	22	(1.9)	43	(2.3)	30	(2.3)
Design their *own* activity or investigation	16	(2.0)	33	(2.0)	36	(2.2)	13	(1.7)	2	(0.6)
Use mathematical concepts to interpret and solve applied problems	4	(0.9)	8	(1.2)	26	(2.0)	46	(2.2)	17	(1.7)
Answer textbook or worksheet questions	5	(1.0)	4	(0.8)	10	(1.6)	34	(2.3)	47	(2.6)
Record, represent, and/or analyze data	4	(1.1)	11	(2.0)	39	(2.3)	36	(2.4)	10	(1.4)
Write reflections	30	(2.4)	23	(2.0)	25	(2.0)	16	(1.6)	5	(1.0)
Make formal presentations to the rest of the class	34	(2.2)	36	(2.3)	21	(2.2)	8	(1.1)	1	(0.6)
Work on extended mathematics investigations or projects	46	(2.7)	34	(2.8)	14	(1.7)	4	(0.7)	2	(0.7)
Use calculators or computers for learning or practicing skills	14	(1.9)	21	(1.9)	38	(2.3)	24	(2.1)	3	(0.8)
Use calculators or computers to develop conceptual understanding	17	(2.3)	24	(2.0)	37	(2.6)	20	(2.1)	2	(0.6)
Use calculators or computers as a tool	49	(2.8)	24	(2.0)	18	(1.8)	8	(1.3)	1	(0.4)

Table MTQ 25.2
Grade 5–8 Mathematics Teachers Report
Various Activities in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Listen and take notes during presentation by teacher	4	(1.3)	10	(1.9)	17	(2.0)	35	(2.7)	34	(2.4)
Work in groups	0	(0.1)	8	(1.5)	27	(2.3)	47	(3.1)	18	(1.9)
Read from a mathematics textbook in class	7	(1.4)	21	(1.9)	23	(2.2)	31	(2.5)	17	(2.2)
Read other mathematics-related materials in class	14	(1.7)	40	(2.8)	29	(2.4)	14	(1.8)	3	(0.7)
Engage in mathematical activities using concrete materials	1	(0.3)	10	(1.7)	42	(2.7)	39	(2.3)	9	(1.8)
Practice routine computations/algorithms	1	(0.4)	5	(1.1)	14	(1.8)	43	(2.2)	36	(2.4)
Review homework/worksheet assignments	0	(0.1)	1	(0.3)	6	(1.3)	25	(2.3)	67	(2.7)
Follow specific instructions in an activity or investigation	0	(0.1)	4	(1.1)	18	(1.7)	45	(2.1)	32	(2.3)
Design their *own* activity or investigation	11	(1.4)	41	(2.8)	36	(2.6)	10	(1.4)	1	(0.6)
Use mathematical concepts to interpret and solve applied problems	0	(0.2)	6	(1.4)	23	(1.9)	48	(2.4)	24	(2.5)
Answer textbook or worksheet questions	0	(0.3)	2	(1.1)	8	(1.1)	35	(2.2)	55	(2.5)
Record, represent, and/or analyze data	1	(0.2)	12	(1.7)	38	(2.7)	40	(3.1)	9	(1.7)
Write reflections	32	(2.3)	29	(2.4)	22	(2.1)	12	(1.9)	4	(0.9)
Make formal presentations to the rest of the class	19	(1.9)	45	(2.2)	25	(1.8)	9	(1.7)	2	(1.1)
Work on extended mathematics investigations or projects	24	(2.5)	45	(2.7)	24	(1.9)	6	(1.1)	1	(0.3)
Use calculators or computers for learning or practicing skills	4	(1.0)	11	(1.5)	31	(2.7)	38	(2.8)	16	(1.6)
Use calculators or computers to develop conceptual understanding	6	(1.3)	18	(2.0)	32	(2.5)	32	(2.2)	12	(1.4)
Use calculators or computers as a tool	21	(2.1)	26	(2.2)	27	(2.4)	20	(2.2)	6	(1.1)

Table MTQ 25.3
Grade 9–12 Mathematics Teachers Report
Various Activities in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Listen and take notes during presentation by teacher	0	(0.1)	2	(0.5)	5	(1.1)	34	(1.7)	59	(1.7)
Work in groups	1	(0.3)	6	(1.0)	30	(2.0)	44	(2.0)	19	(1.6)
Read from a mathematics textbook in class	11	(1.2)	27	(2.3)	28	(1.8)	23	(1.6)	10	(1.4)
Read other mathematics-related materials in class	28	(1.7)	45	(1.9)	20	(1.5)	5	(0.7)	1	(0.4)
Engage in mathematical activities using concrete materials	4	(0.7)	26	(1.8)	44	(1.9)	21	(1.4)	5	(0.5)
Practice routine computations/algorithms	1	(0.3)	6	(0.7)	19	(1.4)	45	(1.8)	30	(1.9)
Review homework/worksheet assignments	0	(0.1)	1	(0.3)	6	(1.2)	23	(1.6)	70	(1.9)
Follow specific instructions in an activity or investigation	1	(0.2)	4	(0.7)	23	(1.7)	44	(1.9)	28	(1.9)
Design their *own* activity or investigation	25	(1.9)	46	(2.2)	23	(1.7)	4	(0.6)	2	(0.8)
Use mathematical concepts to interpret and solve applied problems	1	(0.3)	8	(0.8)	22	(1.5)	48	(2.1)	21	(1.5)
Answer textbook or worksheet questions	0	(0.1)	1	(0.4)	4	(0.9)	30	(1.6)	65	(1.9)
Record, represent, and/or analyze data	4	(0.6)	24	(1.5)	39	(1.9)	26	(1.7)	7	(0.9)
Write reflections	55	(2.1)	27	(1.6)	12	(1.3)	5	(0.8)	1	(0.5)
Make formal presentations to the rest of the class	30	(1.9)	44	(2.1)	19	(1.6)	6	(1.0)	1	(0.2)
Work on extended mathematics investigations or projects	37	(2.2)	42	(2.0)	16	(1.4)	3	(0.6)	1	(0.2)
Use calculators or computers for learning or practicing skills	3	(0.6)	4	(0.8)	12	(1.1)	33	(1.7)	49	(1.9)
Use calculators or computers to develop conceptual understanding	4	(0.6)	12	(1.3)	23	(1.6)	32	(1.7)	29	(1.8)
Use calculators or computers as a tool	19	(1.6)	21	(1.5)	24	(1.4)	20	(1.8)	16	(1.5)

Table MTQ 26.1
Grade K–4 Mathematics Teachers Report
Use of Computers in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Do drill and practice	20	(2.2)	19	(2.2)	29	(2.3)	28	(2.3)	4	(0.9)
Demonstrate mathematics principles	32	(2.2)	26	(2.3)	24	(2.1)	13	(1.6)	4	(0.8)
Play mathematics learning games	12	(1.7)	12	(1.6)	29	(2.2)	39	(2.1)	7	(1.1)
Do simulations	51	(2.3)	24	(2.2)	15	(1.6)	9	(1.2)	2	(0.5)
Collect data using sensors or probes	75	(2.1)	16	(1.9)	6	(1.0)	2	(0.5)	1	(0.3)
Retrieve or exchange data	66	(2.5)	20	(2.2)	9	(1.4)	4	(1.0)	1	(0.5)
Solve problems using simulations	56	(2.3)	21	(2.1)	14	(1.6)	8	(1.2)	1	(0.5)
Take a test or quiz	60	(2.3)	16	(1.8)	13	(1.4)	10	(1.7)	1	(0.4)

Table MTQ 26.2
Grade 5–8 Mathematics Teachers Report
Use of Computers in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Do drill and practice	15	(1.9)	22	(2.2)	25	(2.4)	27	(3.0)	11	(1.4)
Demonstrate mathematics principles	13	(2.0)	18	(1.8)	32	(2.0)	29	(2.4)	8	(1.1)
Play mathematics learning games	18	(2.2)	24	(2.1)	39	(2.4)	17	(1.9)	3	(0.7)
Do simulations	32	(2.4)	29	(2.0)	30	(2.1)	7	(1.5)	2	(0.5)
Collect data using sensors or probes	60	(2.7)	24	(1.9)	14	(2.2)	2	(0.6)	1	(0.3)
Retrieve or exchange data	38	(2.2)	33	(2.4)	21	(2.0)	7	(1.4)	2	(0.6)
Solve problems using simulations	34	(2.3)	27	(2.3)	25	(1.9)	11	(1.4)	3	(0.6)
Take a test or quiz	21	(2.0)	19	(2.4)	29	(2.0)	25	(2.7)	7	(1.1)

Table MTQ 26.3
Grade 9–12 Mathematics Teachers Report
Use of Computers in Their Classrooms

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Do drill and practice	11	(1.2)	12	(1.3)	15	(1.9)	26	(1.6)	36	(1.8)
Demonstrate mathematics principles	6	(0.8)	13	(1.3)	30	(1.6)	32	(1.9)	19	(1.5)
Play mathematics learning games	44	(1.8)	34	(2.0)	16	(1.6)	3	(0.6)	3	(0.7)
Do simulations	37	(2.1)	33	(1.8)	19	(1.4)	7	(1.0)	3	(0.8)
Collect data using sensors or probes	67	(1.8)	23	(1.8)	6	(0.9)	2	(0.4)	2	(0.4)
Retrieve or exchange data	50	(2.1)	28	(2.0)	14	(1.6)	6	(0.9)	3	(0.7)
Solve problems using simulations	42	(2.3)	28	(1.9)	16	(1.4)	9	(1.0)	5	(1.0)
Take a test or quiz	7	(1.4)	5	(0.9)	20	(1.7)	41	(2.0)	27	(1.6)

Table MTQ 27.1
Grade K–4 Mathematics Teachers Report
Assessing Student Progress Using Various Methods

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Conduct a pre-assessment to determine what students already know	5	(1.4)	26	(1.9)	40	(2.5)	20	(1.9)	8	(1.2)
Observe students and ask questions as they work individually	0	(0.3)	1	(0.5)	9	(1.5)	43	(2.7)	46	30
Observe students and ask questions as they work in small groups	1	(0.6)	3	(0.7)	19	(1.7)	41	(2.6)	36	(2.8)
Ask students questions during large group discussions	0	(0.0)	0	(0.0)	3	(0.8)	30	(2.8)	67	(2.9)
Use assessments embedded in class activities to see if students are "getting it"	1	(0.4)	1	(0.6)	12	(2.0)	45	(2.6)	41	(2.6)
Review student homework	8	(1.2)	6	(1.1)	8	(1.4)	30	(2.4)	49	(2.5)
Review student notebooks/journals	35	(2.7)	12	(1.6)	22	(2.3)	23	(2.0)	8	(1.2)
Review student portfolios	33	(2.4)	22	(2.0)	29	(2.7)	13	(1.6)	4	(0.9)
Have students do long-term mathematics projects	58	(2.9)	27	(2.6)	10	(1.5)	4	(1.0)	1	(0.2)
Have students present their work to the class	26	(2.3)	26	(2.3)	30	(2.7)	15	(1.8)	3	(0.9)
Give predominantly short-answer tests	22	(2.0)	17	(2.1)	34	(2.4)	19	(1.9)	9	(1.2)
Give tests requiring open-ended responses	23	(2.2)	28	(2.5)	34	(2.5)	12	(1.4)	4	(0.9)
Grade student work on open-ended and/or laboratory tasks using defined criteria	41	(2.4)	24	(2.3)	25	(2.1)	8	(1.2)	2	(0.7)
Have students assess each other	43	(2.4)	28	(2.2)	21	(2.2)	7	(1.1)	1	(0.4)

Table MTQ 27.2
Grade 5–8 Mathematics Teachers Report
Assessing Student Progress Using Various Methods

	Percent of Teachers									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Conduct a pre-assessment to determine what students already know	6	(1.2)	35	(2.1)	35	(2.3)	16	(2.1)	8	(2.0)
Observe students and ask questions as they work individually	0	(0.0)	1	(0.3)	9	(1.3)	41	(2.2)	49	(2.3)
Observe students and ask questions as they work in small groups	1	(0.9)	7	(1.4)	23	(2.1)	43	(2.1)	26	(2.4)
Ask students questions during large group discussions	0	(0.1)	0	(0.2)	7	(1.3)	27	(2.4)	66	(2.6)
Use assessments embedded in class activities to see if students are "getting it"	0	(0.1)	2	(0.4)	15	(1.9)	44	(3.1)	39	(3.4)
Review student homework	0	(0.1)	0	(0.3)	3	(0.7)	25	(2.0)	71	(2.2)
Review student notebooks/journals	23	(2.4)	18	(2.2)	31	(2.1)	19	(1.8)	9	(1.6)
Review student portfolios	46	(2.4)	23	(2.5)	20	(1.8)	8	(1.3)	2	(0.6)
Have students do long-term mathematics projects	29	(2.6)	45	(2.5)	21	(2.0)	4	(0.8)	1	(0.4)
Have students present their work to the class	13	(1.9)	31	(2.3)	35	(2.0)	15	(1.9)	6	(1.4)
Give predominantly short-answer tests	17	(2.2)	21	(1.9)	31	(2.6)	22	(2.6)	9	(1.2)
Give tests requiring open-ended responses	6	(1.2)	23	(2.1)	41	(2.9)	25	(2.4)	6	(1.2)
Grade student work on open-ended and/or laboratory tasks using defined criteria	21	(2.7)	29	(2.4)	34	(2.4)	13	(1.9)	4	(1.0)
Have students assess each other	30	(2.9)	33	(2.5)	25	(1.9)	11	(1.5)	2	(0.7)

Table MTQ 27.3
Grade 9–12 Mathematics Teachers Report
Assessing Student Progress Using Various Methods

	Percent of Classes									
	Never		A few times a year		Once or twice a month		Once or twice a week		All or almost all lessons	
Conduct a pre-assessment to determine what students already know	12	(1.5)	43	(2.0)	29	(1.9)	12	(1.5)	4	(0.7)
Observe students and ask questions as they work individually	0	(0.2)	3	(1.3)	11	(1.3)	43	(1.9)	42	(1.9)
Observe students and ask questions as they work in small groups	1	(0.4)	9	(1.6)	23	(1.7)	42	(1.9)	24	(1.7)
Ask students questions during large group discussions	1	(0.2)	2	(0.7)	8	(1.2)	32	(1.7)	58	(1.9)
Use assessments embedded in class activities to see if students are "getting it"	1	(0.3)	5	(0.8)	19	(1.4)	42	(2.0)	32	(1.7)
Review student homework	1	(0.6)	1	(0.4)	7	(1.4)	27	(1.6)	63	(1.9)
Review student notebooks/journals	32	(2.1)	25	(1.6)	27	(1.8)	12	(1.2)	5	(0.7)
Review student portfolios	65	(2.2)	18	(1.5)	13	(1.5)	3	(0.5)	1	(0.4)
Have students do long-term mathematics projects	39	(1.8)	44	(1.9)	13	(1.4)	3	(0.7)	1	(0.2)
Have students present their work to the class	16	(1.5)	31	(2.1)	30	(2.6)	18	(1.4)	6	(0.9)
Give predominantly short-answer tests	21	(1.7)	32	(1.8)	24	(1.9)	16	(1.5)	6	(0.9)
Give tests requiring open-ended responses	6	(0.9)	19	(1.7)	40	(1.9)	25	(1.8)	10	(0.9)
Grade student work on open-ended and/or laboratory tasks using defined criteria	25	(1.9)	29	(1.6)	30	(1.9)	13	(1.5)	4	(0.8)
Have students assess each other	42	(2.0)	34	(2.1)	18	(1.8)	5	(0.9)	1	(0.3)

Table MTQ 28a.1
Availability of Various Equipment in Grade K–4 Mathematics Classrooms

	Percent of Classes					
	Not at all Available				Readily Available	
	1		2		3	
Overhead projector	3	(1.1)	7	(1.4)	90	(1.6)
Videotape player	6	(1.3)	15	(1.9)	79	(2.4)
Videodisc player	63	(3.0)	16	(2.1)	21	(2.0)
CD-ROM player	24	(2.4)	18	(2.2)	59	(2.8)
Four-function calculators	32	(2.6)	15	(1.8)	54	(2.8)
Fraction calculators	88	(1.9)	9	(1.5)	3	(0.8)
Graphing calculators	93	(1.3)	5	(1.1)	2	(0.6)
Scientific calculators	92	(1.3)	5	(1.1)	3	(0.9)
Computers	4	(1.1)	22	(2.5)	74	(2.6)
Calculator/computer lab interfacing devices	64	(2.4)	19	(2.0)	17	(1.8)
Computers with Internet connection	20	(2.6)	24	(2.6)	57	(3.1)

Table MTQ 28a.2
Availability of Various Equipment in Grade 5–8 Mathematics Classrooms

	Percent of Classes					
	Not at all Available				Readily Available	
	1		2		3	
Overhead projector	1	(0.3)	5	(1.1)	94	(1.2)
Videotape player	4	(0.9)	20	(2.1)	76	(2.2)
Videodisc player	51	(2.8)	24	(1.9)	25	(2.7)
CD-ROM player	24	(2.9)	19	(2.2)	57	(2.8)
Four-function calculators	11	(1.4)	11	(1.3)	78	(1.8)
Fraction calculators	41	(2.6)	15	(1.5)	44	(2.4)
Graphing calculators	63	(2.4)	18	(2.0)	19	(2.0)
Scientific calculators	50	(2.4)	15	(1.5)	35	(2.3)
Computers	7	(1.1)	34	(2.4)	59	(2.5)
Calculator/computer lab interfacing devices	53	(2.7)	27	(2.1)	20	(2.2)
Computers with Internet connection	16	(2.3)	31	(2.4)	53	(3.0)

Table MTQ 28a.3
Availability of Various Equipment in Grade 9–12 Mathematics Classrooms

	Percent of Classes					
	Not at all Available				Readily Available	
	1		2		3	
Overhead projector	2	(0.6)	6	(1.1)	93	(1.2)
Videotape player	7	(0.9)	27	(2.0)	66	(2.1)
Videodisc player	58	(2.2)	25	(1.9)	16	(1.8)
CD-ROM player	33	(2.4)	25	(1.9)	42	(2.3)
Four-function calculators	17	(1.4)	15	(1.8)	68	(1.9)
Fraction calculators	24	(1.7)	19	(1.5)	57	(2.0)
Graphing calculators	10	(1.4)	21	(1.8)	69	(2.0)
Scientific calculators	12	(1.1)	19	(1.7)	69	(2.1)
Computers	15	(1.6)	46	(1.8)	39	(2.1)
Calculator/computer lab interfacing devices	37	(2.5)	35	(1.9)	28	(2.6)
Computers with Internet connection	20	(2.4)	34	(2.1)	46	(2.4)

Table MTQ 28b
Mathematics Classes Where Teachers Indicate They Need Various Equipment

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Overhead projector	84	(2.0)	82	(2.3)	79	(1.8)
Videotape player	40	(3.0)	39	(2.4)	30	(2.1)
Videodisc player	13	(1.8)	15	(2.2)	5	(0.8)
CD-ROM player	50	(2.6)	34	(2.6)	21	(1.9)
Four-function calculators	56	(2.2)	74	(2.5)	54	(1.8)
Fraction calculators	9	(1.4)	52	(3.1)	49	(2.0)
Graphing calculators	5	(1.0)	30	(2.4)	69	(2.1)
Scientific calculators	6	(1.2)	45	(3.3)	67	(1.9)
Computers	83	(2.2)	73	(2.3)	54	(2.6)
Calculator/computer lab interfacing devices	26	(2.4)	41	(2.9)	37	(2.3)
Computers with Internet connection	53	(3.1)	62	(2.7)	39	(2.3)

Table MTQ 28c.1
Use of Various Equipment in Grade K–4 Mathematics Classes

	Percent of Classes					
	Never use in this course		Use in specific parts of this course		Fully integrated into this course	
Overhead projector	13	(1.9)	42	(2.7)	45	(2.5)
Videotape player	59	(2.8)	37	(2.7)	3	(0.8)
Videodisc player	92	(1.4)	7	(1.4)	1	(0.5)
CD-ROM player	55	(2.6)	38	(2.5)	7	(1.2)
Four-function calculators	45	(2.5)	46	(2.8)	9	(1.5)
Fraction calculators	97	(0.8)	2	(0.7)	1	(0.3)
Graphing calculators	99	(0.6)	1	(0.6)	0	(0.1)
Scientific calculators	97	(0.8)	2	(0.8)	0	(0.2)
Computers	18	(2.4)	63	(2.8)	19	(2.1)
Calculator/computer lab interfacing devices	82	(1.9)	15	(1.8)	3	(0.8)
Computers with Internet connection	61	(2.8)	35	(2.7)	5	(0.9)

Table MTQ 28c.2
Use of Various Equipment in Grade 5–8 Mathematics Classes

	Percent of Classes					
	Never use in this course		Use in specific parts of this course		Fully integrated into this course	
Overhead projector	11	(2.2)	27	(2.8)	62	(3.0)
Videotape player	57	(2.2)	40	(2.4)	4	(1.4)
Videodisc player	91	(1.7)	7	(1.2)	2	(1.2)
CD-ROM player	65	(3.1)	29	(2.7)	5	(1.5)
Four-function calculators	22	(1.9)	42	(2.6)	36	(2.6)
Fraction calculators	51	(2.5)	28	(1.9)	22	(2.0)
Graphing calculators	78	(1.9)	16	(1.5)	6	(1.4)
Scientific calculators	58	(2.8)	26	(2.4)	17	(1.9)
Computers	28	(2.6)	59	(2.8)	13	(1.7)
Calculator/computer lab interfacing devices	75	(2.0)	20	(1.8)	5	(1.0)
Computers with Internet connection	52	(3.3)	41	(3.3)	7	(1.0)

Table MTQ 28c.3
Use of Various Equipment in Grade 9–12 Mathematics Classes

	Percent of Classes					
	Never use in this course		Use in specific parts of this course		Fully integrated into this course	
Overhead projector	13	(1.5)	33	(2.0)	54	(2.2)
Videotape player	61	(2.1)	37	(2.1)	2	(1.0)
Videodisc player	97	(0.9)	2	(0.5)	1	(0.8)
CD-ROM player	81	(2.0)	18	(1.9)	1	(0.4)
Four-function calculators	39	(2.1)	21	(1.7)	40	(2.2)
Fraction calculators	44	(2.3)	21	(1.6)	34	(2.0)
Graphing calculators	26	(2.0)	29	(2.0)	45	(2.2)
Scientific calculators	25	(1.7)	24	(1.5)	51	(2.2)
Computers	46	(2.2)	48	(2.2)	6	(0.8)
Calculator/computer lab interfacing devices	72	(1.9)	25	(1.9)	3	(0.5)
Computers with Internet connection	63	(2.0)	34	(2.0)	3	(1.0)

Table MTQ 29
Estimated Amount of Own Money Mathematics Teachers Spend on Supplies per Class

	Median Amount
Grades K–4	$ 40
Grades 5–8	$ 50
Grades 9–12	$ 50

Table MTQ 30
Estimated Amount of Own Money Mathematics Teachers Spend on Professional Development

	Median Amount
Grades K–4	$ 0
Grades 5–8	$ 40
Grades 9–12	$ 50

Table MTQ 31.1
Grade K–4 Mathematics Classes Where Teachers Report Having Control Over Various Curriculum and Instruction Decisions

	Percent of Classes									
	No Control								Strong Control	
	1		2		3		4		5	
Determining course goals and objectives	30	(2.2)	17	(1.9)	26	(2.2)	15	(1.8)	12	(1.6)
Selecting textbooks/instructional programs	29	(2.1)	24	(1.9)	28	(2.1)	13	(1.5)	5	(1.0)
Selecting other instructional materials	5	(1.0)	7	(1.2)	30	(2.3)	28	(2.3)	30	(1.9)
Selecting content, topics, and skills to be taught	26	(3.0)	19	(1.8)	28	(2.3)	18	(2.1)	9	(1.3)
Selecting the sequence in which topics are covered	13	(1.9)	9	(1.2)	21	(2.5)	21	(2.1)	36	(2.6)
Setting the pace for covering topics	5	(1.2)	10	(1.5)	17	(2.2)	22	(2.2)	45	(2.8)
Selecting teaching techniques	1	(0.5)	2	(0.8)	10	(1.6)	24	(2.3)	63	(2.5)
Determining the amount of homework to be assigned	3	(1.2)	1	(0.5)	11	(1.7)	17	(1.8)	68	(2.6)
Choosing criteria for grading students	4	(0.8)	7	(1.5)	21	(2.0)	22	(2.1)	45	(2.8)
Choosing tests for classroom assessment	8	(1.6)	8	(1.3)	19	(2.1)	23	(2.1)	42	(2.5)

Table MTQ 31.2
Grade 5–8 Mathematics Classes Where Teachers Report Having Control Over Various Curriculum and Instruction Decisions

	Percent of Classes									
	No Control								Strong Control	
	1		2		3		4		5	
Determining course goals and objectives	24	(2.4)	14	(1.8)	23	(2.3)	18	(1.9)	20	(2.6)
Selecting textbooks/instructional programs	26	(2.6)	14	(1.2)	26	(2.5)	20	(2.1)	14	(1.7)
Selecting other instructional materials	5	(1.0)	6	(1.2)	23	(2.5)	25	(2.2)	41	(2.4)
Selecting content, topics, and skills to be taught	21	(2.7)	15	(1.7)	22	(2.2)	22	(2.1)	20	(3.1)
Selecting the sequence in which topics are covered	9	(2.2)	7	(1.3)	13	(1.9)	21	(1.9)	50	(3.2)
Setting the pace for covering topics	4	(1.3)	5	(0.9)	15	(1.7)	27	(2.2)	49	(2.5)
Selecting teaching techniques	1	(0.3)	2	(0.8)	7	(1.7)	20	(2.1)	71	(2.7)
Determining the amount of homework to be assigned	1	(0.4)	1	(0.4)	4	(0.9)	22	(2.2)	72	(2.5)
Choosing criteria for grading students	2	(0.9)	2	(0.7)	11	(1.8)	30	(2.4)	56	(2.3)
Choosing tests for classroom assessment	1	(0.5)	4	(1.0)	6	(1.3)	23	(2.4)	66	(2.7)

Table MTQ 31.3
Grade 9–12 Mathematics Classes Where Teachers Report Having Control Over Various Curriculum and Instruction Decisions

	Percent of Classes									
	No Control								Strong Control	
	1		2		3		4		5	
Determining course goals and objectives	17	(1.6)	11	(1.2)	20	(1.7)	25	(1.9)	27	(2.0)
Selecting textbooks/instructional programs	21	(2.2)	12	(1.0)	21	(1.5)	21	(1.9)	25	(2.1)
Selecting other instructional materials	4	(0.7)	4	(0.6)	19	(1.7)	29	(1.9)	44	(2.3)
Selecting content, topics, and skills to be taught	13	(1.4)	12	(1.1)	20	(1.6)	28	(2.0)	27	(2.0)
Selecting the sequence in which topics are covered	4	(0.6)	5	(0.6)	12	(1.5)	27	(1.6)	52	(2.0)
Setting the pace for covering topics	2	(0.3)	7	(0.7)	12	(1.2)	29	(1.6)	50	(1.9)
Selecting teaching techniques	0	(0.2)	1	(0.2)	3	(0.5)	22	(1.6)	74	(1.6)
Determining the amount of homework to be assigned	0	(0.2)	1	(0.3)	3	(0.8)	15	(1.4)	82	(1.5)
Choosing criteria for grading students	1	(0.3)	1	(0.4)	7	(1.1)	21	(1.6)	70	(1.7)
Choosing tests for classroom assessment	1	(0.3)	1	(0.3)	3	(0.6)	16	(1.5)	79	(1.6)

Table MTQ 32
Amount of Homework Assigned in Mathematics Classes per Week

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
0–30 minutes	48	(2.3)	8	(1.3)	6	(0.9)
31–60 minutes	27	(2.3)	21	(2.2)	14	(1.3)
61–90 minutes	13	(1.8)	26	(2.5)	23	(2.0)
91–120 minutes	8	(1.3)	24	(2.4)	23	(1.6)
2–3 hours	3	(0.9)	17	(1.8)	23	(1.7)
More than 3 hours	1	(0.4)	5	(1.6)	11	(1.2)

Table 33a
Mathematics Classes Using Commercially-Published Textbooks or Programs

	Percent of Classes	
Grades K–4	87	(1.6)
Grades 5–8	92	(1.3)
Grades 9–12	94	(0.8)

Table MTQ 33b
Use of Commercially-Published Textbooks or Programs in Mathematics Classes

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Use one textbook or program all or most of the time	62	(2.6)	66	(2.2)	79	(1.4)
Use multiple textbooks/programs	25	(2.4)	25	(2.1)	15	(1.3)

Table MTQ 34
Publishers of Textbooks/Programs Used in Mathematics Classes

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Addison Wesley Longman, Inc./Scott Foresman	20	(3.0)	16	(2.0)	12	(1.4)
Brooks/Cole Publishing Co	0	—*	0	—*	1	(0.2)
CORD Communications	0	—*	0	—*	1	(0.4)
Creative Publications	2	(0.7)	1	(0.6)	0	—*
Dale Seymour Publications†	2	(0.9)	3	(0.7)	0	(0.0)
EFA & Associates	0	—*	0	—*	0	—*
Encyclopaedia Britannica	0	—*	0	(0.1)	0	—*
Everyday Learning Corporation	7	(1.7)	4	(1.4)	1	(0.2)
Globe Fearon, Inc/Camridge	0	—*	0	(0.1)	1	(0.4)
Harcourt Brace/Harcourt, Brace & Jovanovich	16	(2.5)	10	(1.9)	1	(0.4)
Holt, Rinehart and Winston, Inc	0	(0.3)	0	(0.2)	4	(0.8)
Houghton Mifflin Company/McDougal Littell/D.C. Heath	15	(2.4)	18	(2.4)	27	(2.0)
Kendall Hunt Publishing	0	—*	0	—*	0	(0.0)
Key Curriculum Press	0	—*	0	(0.1)	3	(0.6)
McGraw-Hill/Merrill Co	10	(2.6)	22	(2.3)	22	(1.8)
Optical Data Corporation	0	—*	0	—*	0	—*
Prentice Hall, Inc.	0	—*	6	(1.2)	13	(2.4)
Saxon Publishers	11	(2.5)	8	(1.9)	3	(0.8)
Silver Burdett Ginn	11	(2.4)	3	(0.7)	0	—*
South-Western Educational Publishing	0	—*	0	(0.3)	3	(0.7)
Video Text Interactive	0	—*	0	—*	0	—*
Wadsworth Publishing	0	—*	0	—*	0	—*
West Educational Publishing	0	—*	0	—*	0	(0.3)
"Others" specified:						
Aamsco	0	—*	0	(0.1)	5	(1.1)
A-Beka	1	(0.4)	3	(1.8)	0	—*
Open Court	2	(1.3)	0	—*	0	—*

* No teachers in the sample selected this response option. Thus, it is not possible to calculate the standard error of this estimate.

† Between the time data were collected and this report was released, Dale Seymour Publications was bought by Prentice Hall.

There is no table for MTQ 35a.

Table MTQ 35b
Percentage of Mathematics Textbooks/Programs Covered During the Course†

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
<25%	1	(0.4)	1	(0.5)	1	(0.2)
25–49%	3	(1.0)	5	(1.1)	6	(0.8)
50–74%	17	(2.2)	27	(2.5)	28	(2.0)
75–90%	38	(2.7)	46	(3.3)	47	(2.4)
>90%	41	(3.0)	21	(2.2)	19	(1.5)

† Only classes using published textbooks/programs were included in these analyses

Table MTQ 35c
Teachers' Perceptions of Quality of Textbooks/Programs Used in Mathematics Classes

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Very Poor	1	(0.5)	2	(0.7)	1	(0.2)
Poor	3	(0.9)	5	(1.3)	3	(0.6)
Fair	18	(2.3)	16	(1.7)	19	(1.7)
Good	34	(2.7)	34	(2.4)	35	(2.1)
Very Good	36	(2.8)	33	(2.6)	34	(2.1)
Excellent	8	(1.5)	10	(1.9)	9	(1.3)

Table MTQ 36a
Average Length of Most Recent Mathematics Lesson

	Number of Minutes	
Grades K–4	52	(0.9)
Grades 5–8	55	(0.7)
Grades 9–12	62	(1.1)

Table MTQ 36b
Time Spent on Various Types of Activities in Most Recent Mathematics Lesson

	Percent of Time					
	Grades K–4		Grades 5–8		Grades 9–12	
Daily routines, interruptions, and other non-instructional activities	10	(0.4)	12	(0.4)	12	(0.3)
Whole class lecture/discussions	27	(0.7)	36	(0.9)	42	(0.9)
Individual students reading textbooks, completing worksheets, etc.	24	(1.1)	25	(1.1)	21	(0.8)
Working with hands-on or manipulative materials	27	(1.2)	11	(1.0)	5	(0.4)
Non-manipulative small group work	8	(0.7)	10	(0.8)	15	(0.8)
Other activities	4	(0.6)	5	(0.6)	6	(0.4)

Table MTQ 37
Mathematics Classes Participating in Various Activities in Most Recent Lesson

	Percent of Classes					
	Grades K–4		Grades 5–8		Grades 9–12	
Lecture	68	(2.4)	80	(2.0)	88	(1.1)
Discussion	89	(1.7)	91	(1.5)	90	(1.0)
Students completing textbook/worksheet problems	77	(2.2)	80	(1.8)	81	(1.6)
Students doing hands-on/manipulative activities	75	(2.2)	36	(2.9)	19	(1.5)
Students reading about mathematics	17	(1.6)	26	(2.0)	17	(1.6)
Students working in small groups	52	(2.7)	52	(2.3)	55	(1.8)
Students using calculators	5	(0.9)	39	(2.1)	80	(1.5)
Students using computers	7	(1.1)	5	(1.0)	3	(0.7)
Students using other technologies	2	(0.6)	4	(0.9)	1	(0.2)
Test or quiz	13	(1.7)	15	(1.8)	15	(1.3)
None of the above	0	(0.2)	0	(0.2)	0	(0.3)

Table MTQ 38
Mathematics Taught on Most Recent Day of School

	Percent of Classes	
Grades K–4	95	(1.1)
Grades 5–8	93	(1.8)
Grades 9–12	92	(1.0)

Table MTQ 39
Gender of Mathematics Teachers

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Male	4	(1.0)	24	(3.3)	45	(2.0)
Female	96	(1.0)	76	(3.3)	55	(2.0)

Table MTQ 40
Race/Ethnicity of Mathematics Teachers

	Percent of Teachers†					
	Grades K–4		Grades 5–8		Grades 9–12	
American Indian or Alaskan Native	1	(0.2)	1	(0.3)	1	(0.3)
Asian	0	(0.2)	1	(0.6)	1	(0.3)
Black or African-American	4	(0.8)	8	(1.6)	4	(0.8)
Hispanic or Latino	5	(1.2)	6	(1.4)	2	(0.4)
Native Hawaiian or Other Pacific Islander	0	(0.1)	0	(0.3)	0	(0.2)
White	90	(1.5)	86	(2.1)	91	(1.1)

† Percents may not add to 100 because respondents were given the option of selecting more than one category. Of the mathematics teachers responding to the survey, 97 percent selected only one category, 1 percent selected more than one category, and 2 percent selected no category.

Table MTQ 41
Age of Mathematics Teachers

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9–12	
Less than 31 years old	21	(2.0)	21	(2.6)	16	(1.4)
31–40 years old	21	(1.9)	23	(2.6)	24	(1.5)
41–50 years old	31	(2.4)	27	(3.0)	29	(2.0)
More than 50 years old	27	(2.4)	30	(3.4)	30	(1.7)

Table MTQ 42
Number of Years Teaching Experience of Mathematic Teachers

	Percent of Teachers					
	Grades K–4		Grades 5–8		Grades 9-12	
0–2 years	18	(1.9)	20	(3.2)	13	(1.4)
3–5 years	13	(1.5)	12	(1.8)	15	(1.6)
6–10 years	14	(1.6)	16	(2.4)	14	(1.5)
11–20 years	26	(2.0)	21	(2.5)	24	(1.7)
More than 20 years	29	(2.4)	31	(3.3)	34	(2.0)