

# Mathematics Teacher Questionnaire

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**2011**  
**Grade 8**

# TEACHER QUESTIONNAIRE

## GRADE 8 – MATHEMATICS

During the 2010–2011 school year, a sample of students across the country, including some of your eighth-grade students, will participate in the National Assessment of Educational Progress (NAEP). The current assessment focuses on achievement in reading, mathematics, science, and writing. To investigate the relationship between students' achievement and various school, teacher, and home factors, NAEP is also collecting information from schools and teachers.

This questionnaire collects information about teachers' backgrounds and instructional practices as they relate to students selected for the assessment. Since you teach mathematics to one or more students selected for the assessment, you are being asked to answer questions about these students' classes.

Obviously, only you can provide this important information. So, although we realize that you are very busy, we urge you to complete this questionnaire as accurately as possible. The information you provide is being collected for research purposes only and will be kept strictly confidential.

NAEP is authorized under Public Law 107–110. While your participation is voluntary, your responses to these questions are needed to make this survey accurate and complete.

### Instructions

This questionnaire contains two parts.

Part I – Background, Education, and Training

Part II – Classroom Organization and Instruction–Mathematics

**You should complete all parts. Please record your answers online, following the instructions on the front cover. If you do not have Internet access, please answer questions directly on this questionnaire by filling in the appropriate ovals.**

If you do answer questions directly on this questionnaire, please return the questionnaire to your school's NAEP coordinator when you are finished.

**THANK YOU VERY MUCH.**

# Mathematics Teacher Questionnaire – Grade 8

## Part I: Background, Education, and Training

For some questions on this survey, you are asked to fill in numbers. For these questions, please print the appropriate number in each of the boxes provided. Please print legibly with a No. 2 pencil. Keep all printing within the boxes, and erase any stray marks.

Using one number per box, fill in every box. For example, 95 students would be written as:

0 9 5

1. Are you Hispanic or Latino? Fill in **one or more ovals**.

VB331330

- Ⓐ No, I am not Hispanic or Latino.
- Ⓑ Yes, I am Mexican, Mexican American, or Chicano.
- Ⓒ Yes, I am Puerto Rican or Puerto Rican American.
- Ⓓ Yes, I am Cuban or Cuban American.
- Ⓔ Yes, I am from some other Hispanic or Latino background.

2. Which of the following best describes you? Fill in **one or more ovals**.

VB331331

- Ⓐ White
- Ⓑ Black or African American
- Ⓒ Asian
- Ⓓ American Indian or Alaska Native
- Ⓔ Native Hawaiian or other Pacific Islander

**Questions 3–4.** For the next two questions, include any full-time teaching assignments, part-time teaching assignments, and long-term substitute assignments, but not student teaching.

VB337243

3. Counting this year, how many years have you worked as an elementary or secondary teacher? If less than 4 months total experience, enter “00.”

Years

VB482728

4. Counting this year, how many years have you taught mathematics in grades 6 through 12? Include any full-time teaching assignments, part-time teaching assignments, and long-term substitute assignments, but not student teaching. If less than 4 months total experience, enter “00.”

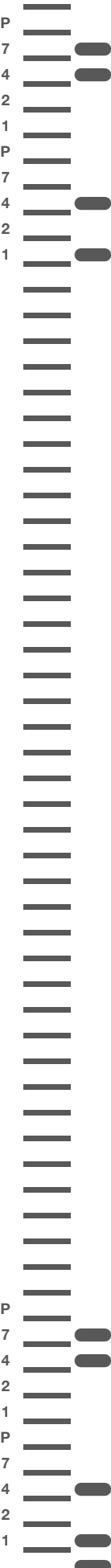
Years

VC309863

5. Did you enter teaching through an alternative certification program?

(An alternative program is a program that was designed to expedite the transition of non-teachers to a teaching career, for example, a state, district, or university alternative certification program.)

- Yes  
 No



VC309874

6. What type of teaching certificate do you hold in the state where you currently teach?
- Ⓐ Regular or standard state certificate or advanced professional certificate → *Skip to Question 8.*
  - Ⓑ Certificate issued after satisfying all requirements except the completion of a probationary period → *Go to Question 7.*
  - Ⓒ Certificate that requires some additional coursework, student teaching, or passage of a test before regular certification can be obtained → *Go to Question 7.*
  - Ⓓ Certificate issued to persons who must complete a certification program in order to continue teaching → *Go to Question 7.*
  - Ⓔ I do not hold any of the above certificates in the state where I currently teach. → *Go to Question 7.*

VB595188

7. Do you hold a currently valid regular or standard certification from a state other than the one in which you are currently teaching?
- Ⓐ Yes
  - Ⓑ No

VC309886

8. This school year, are you a Highly Qualified Teacher (HQT) according to your state's requirements?
- (Generally, to be Highly Qualified, teachers must meet requirements related to 1) a bachelor's degree, 2) full state certification, and 3) demonstrate competency in the subject area(s) taught. The HQT requirement is a provision under the No Child Left Behind (NCLB) Act.)
- Ⓐ Yes
  - Ⓑ I meet my state's requirements for a Highly Qualified Teacher in at least one subject that I teach.
  - Ⓒ No

VC309891

9. Are you certified by the National Board for Professional Teaching Standards in at least one content area?

(The National Board for Professional Teaching Standards is a nongovernmental organization that administers National Board certification, a voluntary national assessment program that certifies teachers who meet high professional standards. In order to gain certification, the candidate must at least complete a portfolio of classroom practice and pass one or more tests of content knowledge.)

- Ⓐ Yes, I am fully certified by the National Board for Professional Teaching Standards.
- Ⓑ I am working towards my National Board certification.
- Ⓒ No

HE001012

10. What is the highest academic degree you hold?

- Ⓐ High school diploma
- Ⓑ Associate's degree/vocational certification
- Ⓒ Bachelor's degree
- Ⓓ Master's degree
- Ⓔ Education specialist's or professional diploma based on at least one year's work past master's degree
- Ⓕ Doctorate
- Ⓖ Professional degree (e.g., M.D., LL.B., J.D., D.D.S.)



11. Did you have a major, minor, or special emphasis in any of the following subjects as part of your **undergraduate** coursework? Fill in **one** oval on each line.

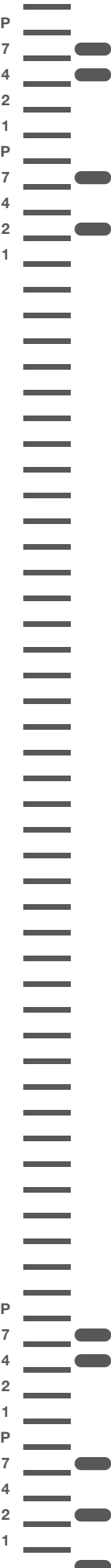
	Yes, a major	Yes, a minor or special emphasis	No	
a. Mathematics education	Ⓐ	Ⓑ	Ⓒ	VB482657
b. Mathematics	Ⓐ	Ⓑ	Ⓒ	VB482658
c. Other mathematics-related subject such as statistics	Ⓐ	Ⓑ	Ⓒ	VB608497
d. Education (including secondary education)	Ⓐ	Ⓑ	Ⓒ	VB482938
e. Special education (including students with disabilities)	Ⓐ	Ⓑ	Ⓒ	VE113515
f. English language learning	Ⓐ	Ⓑ	Ⓒ	VE113516

12. Did you have a major, minor, or special emphasis in any of the following subjects as part of your **graduate** coursework? Fill in **one** oval on each line.

	Yes, a major	Yes, a minor or special emphasis	No	
a. Mathematics education	Ⓐ	Ⓑ	Ⓒ	VB473837
b. Mathematics	Ⓐ	Ⓑ	Ⓒ	VB473838
c. Other mathematics-related subject such as statistics	Ⓐ	Ⓑ	Ⓒ	VB473839
d. Education (including secondary education)	Ⓐ	Ⓑ	Ⓒ	VB482939
e. Special education (including students with disabilities)	Ⓐ	Ⓑ	Ⓒ	VE113560
f. English language learning	Ⓐ	Ⓑ	Ⓒ	VE113562







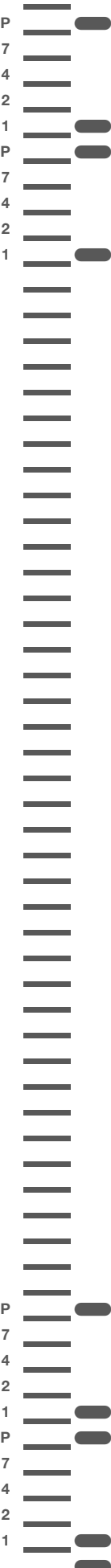
13. Consider all of the professional development activities you participated in during the last **two years**. To what extent did you learn about each of the following topics? Fill in **one** oval on each line.

	Not at all	Small extent	Moderate extent	Large extent	
a. How students learn mathematics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543502
b. Mathematics theory or applications	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543503
c. Content standards in mathematics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543504
d. Curricular materials available in mathematics (units, texts)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543505
e. Instructional methods for teaching mathematics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543506
f. Effective use of manipulatives in mathematics instruction	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB519181
g. Effective use of calculators in mathematics instruction	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543507
h. Use of computers or other technology in mathematics instruction	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543508
i. Methods for assessing students in mathematics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543509
j. Preparation of students for district and state assessments	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543510
k. Issues related to ability grouping in mathematics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543511
l. Strategies for teaching mathematics to students from diverse backgrounds (including English language learners)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VB543512

14. During the last **two years**, did you participate in or lead any of the following professional development activities **related to the teaching of mathematics**? Fill in **one** oval on each line.

- |  | <b>Yes</b>                | <b>No</b>                 |          |
|--|---------------------------|---------------------------|----------|
| a. College course taken after your first certification   | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482583 |
| b. Workshop or training session  | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482584 |
| c. Conference or professional association meeting  | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482585 |
| d. Observational visit to another school   | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482586 |
| e. Mentoring and/or peer observation and coaching as part of a formal arrangement                    | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482587 |
| f. Committee or task force focusing on curriculum, instruction, or student assessment                | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482588 |
| g. Regularly scheduled discussion or study group   | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482589 |
| h. Teacher collaborative or network, such as one organized by an outside agency or over the Internet | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482590 |
| i. Individual or collaborative research  | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482591 |
| j. Independent reading on a regular basis—for example, educational journals, books, or the Internet  | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482592 |
| k. Co-teaching/team teaching   | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482593 |
| l. Consultation with a mathematics specialist  | <input type="radio"/> (A) | <input type="radio"/> (B) | VB482594 |





VB473855

15. Do you have special leadership responsibilities for mathematics education at your school—for example, responsibilities as a mentor teacher, lead teacher, resource specialist, departmental chair, or master teacher?

- (A) Yes
- (B) No

VC304724

16. During the last **two years** have you participated in activities associated with school improvement efforts directed at issues such as adequate yearly progress and state accountability standards?

- (A) Yes
- (B) No

VB543642

17. Are you teaching the following mathematics courses to eighth-grade students **this year**? Include honors sections. Fill in **one** oval on each line.

	<b>Yes</b>	<b>No</b>	
a. Remedial mathematics	<input type="radio"/> (A)	<input type="radio"/> (B)	VB543643
b. General mathematics	<input type="radio"/> (A)	<input type="radio"/> (B)	VB543644
c. Introduction to algebra/pre-algebra	<input type="radio"/> (A)	<input type="radio"/> (B)	VB543645
d. Algebra	<input type="radio"/> (A)	<input type="radio"/> (B)	VB543646
e. Integrated or sequential mathematics	<input type="radio"/> (A)	<input type="radio"/> (B)	VB543647
f. Geometry	<input type="radio"/> (A)	<input type="radio"/> (B)	VB543648

## Part II: Classroom Organization and Instruction – Mathematics

The following questions ask about the organization of your classroom for mathematics instruction. If you teach more than one eighth-grade class, please choose a single class to use as the basis for answering the questions about classroom organization.

If you do not teach mathematics, you have finished this questionnaire. Thank you for your time.

VC311698

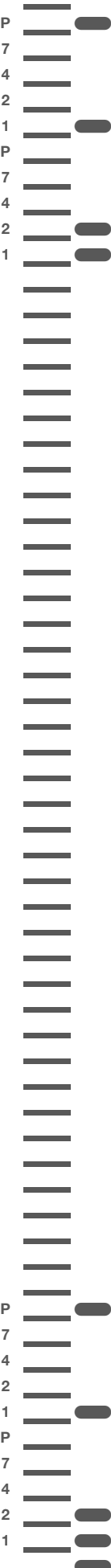
1. Which best describes your role in teaching mathematics to this class?

- Ⓐ I do not teach mathematics to this class.
- Ⓑ I teach all or most subjects, including mathematics.
- Ⓒ The only subject I teach is mathematics.
- Ⓓ We team teach, and I have primary responsibility for teaching mathematics.

VB473856

2. How many students are in this class?

- Ⓐ 15 or fewer
- Ⓑ 16–18
- Ⓒ 19–20
- Ⓓ 21–25
- Ⓔ 26 or more



VB543515

3. How many hours of mathematics instruction do your students receive in a typical week?

- Ⓐ Less than 3 hours
- Ⓑ At least 3 hours, but less than 5 hours
- Ⓒ At least 5 hours, but less than 7 hours
- Ⓓ 7 or more hours

HE002412

4. Are students assigned to this class by ability?

- Ⓐ Yes
- Ⓑ No

HE001104

5. Do you create groups within this class for mathematics instruction on the basis of ability?

- Ⓐ Yes
- Ⓑ No



HE001130

6. How often do you use each of the following to assess student progress in mathematics?  
Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a year	Once or twice a month	Once or twice a week	
a. Multiple-choice tests	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE001131
b. Problem sets	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE001132
c. Short (e.g., a phrase or sentence) or long (e.g., several sentences or paragraphs) written responses	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE001133
d. Individual or group projects or presentations	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE001134

VC976308

7. Approximately how much mathematics homework do you assign to students in your  
mathematics class each day?

- A None
- B Less than 1 hour
- C About 1 hour
- D About 2 to 3 hours
- E More than 3 hours



VB543554

8. To what extent are students permitted to use calculators during mathematics lessons?

- (A) Unrestricted use
- (B) Restricted use
- (C) Calculators are not permitted.

VB535973

9. What kind of calculator do your students usually use during mathematics lessons?

- (A) None
- (B) Basic four-function (addition, subtraction, multiplication, division)
- (C) Scientific (not graphing)
- (D) Graphing

VB535974

10. When you give students a mathematics test or quiz, how often do they use a calculator?

- Ⓐ Never
- Ⓑ Sometimes
- Ⓒ Always

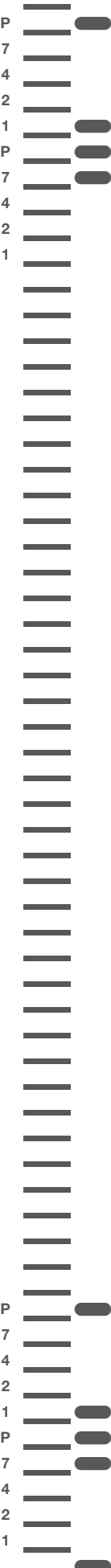
VC976178

11. How often do your students use calculators for each of the following purposes?

Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Work along with the whole class on lessons led by you	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976192
b. "Check their work" on problems they do on their own	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976193
c. Calculate the answers to problems they do on their own	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976194
d. Graph mathematical functions	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976196





TO044600

12. Think about your plans for this mathematics class for the entire year. How much emphasis did you or will you give each of the following? Fill in **one** oval on each line.

	Little or no emphasis	Moderate emphasis	Heavy emphasis	
a. Numbers and operations	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	ID110366
b. Measurement	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	ID110367
c. Geometry	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	ID110368
d. Data analysis, statistics, and probability	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	VC767633
e. Algebra and functions	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	VC767634

VB543516

13. Are computers available for use by you or your students?

- Ⓐ Yes, computers are available to my students and to me.
- Ⓑ Yes, I have access to computers, but my students do not.
- Ⓒ No, neither my students nor I have access to computers at school.

14. In your eighth-grade mathematics class this year, how often do your students use a computer or other technological resources to do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Practice or review mathematics topics on the computer	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976334
b. Extend mathematics learning with enrichment activities on the computer	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976335
c. Research a mathematics topic on the Internet or CD-ROM	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976336
d. Use a drawing program for geometric shapes	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976339
e. Use a graphing program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976353
f. Communicate via e-mail about mathematics	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976354
g. Play mathematics computer games	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976355
h. Use a basic four-function calculator (addition, subtraction, multiplication, division)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976356
i. Use a scientific (not graphing) calculator	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976358
j. Use a graphing calculator	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC976359



VC976295

15. Which of the following statements best describes how well your school system provides you with the materials and other resources you need for mathematics instruction?

- Ⓐ I do not have the resources I need.
- Ⓑ I have some of the resources I need.
- Ⓒ I have most of the resources I need.
- Ⓓ I have all of the resources I need.

VC976362

16. When you teach mathematics to your eighth-grade class, do you do any of the following? Fill in **one** oval on each line.

	Not at all	Small extent	Moderate extent	Large extent	
a. Set different achievement standards for some students	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976363
b. Supplement the regular course curriculum with additional material for some students	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976364
c. Have some students engage in different classroom activities	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976365
d. Use a different set of methods in teaching some students	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976366
e. Pace my teaching differently for some students	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC976367

17. How often do you do each of the following with individual students to evaluate their progress in mathematics? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Discuss the student's current level of performance	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC976304
b. Set goals for specific progress the student would like to make	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC976305
c. Discuss progress the student has made toward goals previously set	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC976306
d. Determine how to adjust your teaching strategies to meet the student's current learning needs and to reflect the student's future goals	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC976307

