NAEP

NATIONAL ASSESSMENT
OF EDUCATIONAL
PROGRESS

GRADE 12

MATHEMATICS | READING

Sample Questions

General Information About The Nation's Report Card

2013

NAEP

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
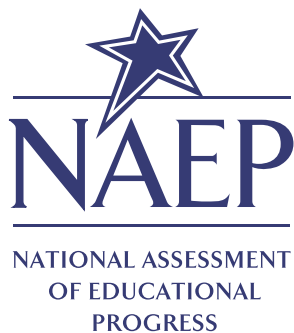
2013
Grade 12

SECTION	
1	M3
2	M4
3	D1
4	MB1

Mathematics Book
M193U

School Information
SCHOOL

Planning Code (Col. E)

Admin. Code (Col. Q)

If Code 2 or 3, complete the box below.

Accommodations Offered in Regular or Separate Session
(Code All That Apply)

If Extended Time (EXT) is coded below, enter the total time used below

Y	EXT
Y	SMG
Y	ONE
Y	RA-D
Y	RA-O
Y	RA-A
Y	BRK
N/A	CAL
Y	SSTF
Y	SCR

Y	LRG
Y	MAG
Y	EQP
Y	CUE
Y	BRL-P
Y	BRL-R
Y	SL-P
Y	SL-R
Y	BI-D
Y	RA-DS
N/A	RA-AS
N/A	BI-B
Y	OTR

DO NOT USE

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

PLACE LABEL HERE

National Assessment of Educational Progress

2013 Sample Questions Booklet

I. About This Sample Questions Booklet

On behalf of the National Assessment of Educational Progress (NAEP), I want to thank you for your participation in this essential measure of student achievement in the United States. NAEP tells us what students in our country know and can do. In the coming year, fourth-, eighth-, and twelfth-graders will participate in NAEP. Twelfth-graders will be assessed in mathematics and reading. Assessments require about 90 minutes of a student's time, and each student answers questions in only one subject. The test booklet contains 50 minutes of test questions and brief student questionnaires.

NAEP is voluntary and individual student scores are not reported. Answers to all student questions are confidential, and student names are removed from all assessment materials before the materials leave the school. Results of the 2013 mathematics and reading assessments will be reported in The Nation's Report Card. Assessment results are widely discussed in the press and are used by policymakers, educators, and researchers to make decisions about education policy and funding.

The national assessment results are more useful when parents, educators, and policymakers are able to study the proficiencies (or scores) and gain information about student experience, the school environment, and learning opportunities available to students. The questionnaires provide educators and policymakers with contextual information for the assessment, as well as information about factors that may be related to students' learning. This booklet includes these questionnaires as well as sample questions for mathematics and reading, in order to promote understanding of the assessment.

If you have any questions or comments regarding NAEP or would like to view previous report cards, please visit the NAEP website at http://nces.ed.gov/nationsreportcard. Also available through the website is a Questions Tool (http://nces.ed.gov/nationsreportcard/itmrlsx), which allows you to review additional sample questions with answers from students in previous NAEP assessments.

Peggy G. Carr, Ph.D.
Associate Commissioner for Assessment
National Center for Education Statistics
Institute of Education Sciences

II. The Assessments

Each NAEP assessment is built around an organizing framework, which is the blueprint that guides the development of the assessment instrument and determines the content to be assessed. The National Assessment Governing Board oversees the development of the NAEP frameworks, which describe the specific knowledge and skills to be assessed in each subject. Frameworks incorporate ideas and input from subject area experts, school administrators, policymakers, teachers, parents, and others.

The Mathematics Assessment

Grade 12

The 2013 NAEP mathematics assessment at grade 12 measures students' ability to solve problems in five mathematics content strands: Number Properties and Operations; Measurement; Geometry; Data Analysis, Statistics, and Probability; and Algebra. Within each of these five content strands, students are asked questions of low, moderate, or high mathematical complexity. Mathematical complexity deals with the level of demand on students' thinking, as a result of what the students are asked to do in a task.

The grade 12 mathematics assessment includes multiple-choice, short constructed-response, and extended constructed-response questions. The short and extended constructed-response questions allow students to communicate their ideas and demonstrate the reasoning they used to solve problems. The short constructed-response and extended constructed-response questions combined make up approximately 50 percent of student assessment time. The assessment also incorporates the use of calculators, rulers, and other ancillary materials, such as geometric shapes, in some parts of the assessment, but not all.

Calculator use is permitted on approximately one-third of the test questions. At grade 12, students may use their own scientific or graphing calculators, with some restrictions for test-security purposes. These items are designed so that students who bring their own graphing calculators are not at an advantage compared to students who use the scientific calculator provided by NAEP. For more information regarding the mathematics assessment framework, please visit the National Assessment Governing Board's website at www.nagb.org/publications/frameworks.htm.

NAEP Mathematics Framework
Distribution of Questions Across Content Strands

Number Properties and Operations	10%
Measurement and Geometry*	30%
Data Analysis, Statistics, and Probability	25%
Algebra	35%

*These two content areas at grade 12 are combined because "this reflects the fact that the majority of measurement topics suitable for twelfth-grade students are geometric in nature" (*Mathematics Framework for the 2011 National Assessment of Educational Progress*, p.5).

Mathematics Assessment Booklet Directions

This assessment uses many different booklets. Each booklet has different questions. Do not worry if the person next to you is working on questions that do not look like those you are working on.

Read each question carefully and answer it as well as you can. Do not spend too much time on any one question.

For some of the questions you may need to write or draw the answer. You can see how this is done in the example below.

Draw a circle in the space below.
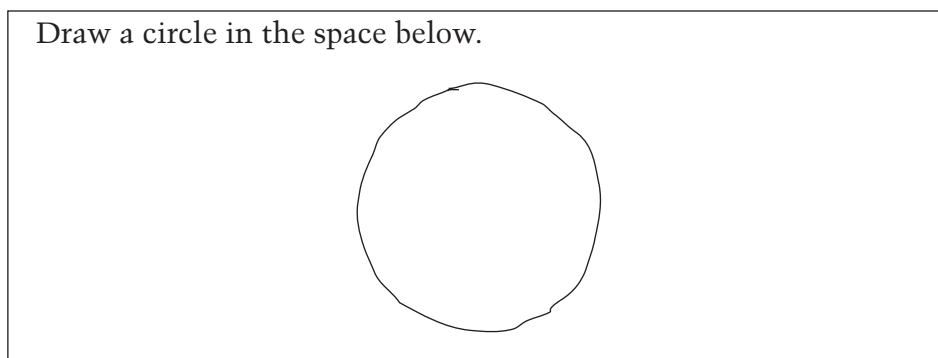
You may be permitted to use a calculator for at least one part of your booklet. You may use either your own calculator or the calculator provided by NAEP. If you are permitted to use a calculator, you will have to decide when to use it in each section where its use is permitted. For some questions using the calculator is helpful, but for other questions the calculator may not be helpful.

If you are using the calculator provided by NAEP, make sure you know how to use it. There are instructions on the back cover of this booklet to help you. If the calculator does not work or if you do not know how to use it, raise your hand and ask for help.

REMEMBER:

Read each question CAREFULLY.

Fill in only ONE OVAL for each question or write your answer in the space provided.

If you change your answer, ERASE your first answer COMPLETELY.

CHECK OVER your work if you finish a section early.

Do not go past the STOP sign at the end of each section until you are told to do so.

STOP

Sample Mathematics Questions
Grade 12

The following questions, with the correct answers indicated, are taken from the NAEP Questions Tool. For additional sample questions and responses, visit http://nces.ed.gov/nationsreportcard/itmrlsx).

1. Which of the following expressions is NOT equivalent to $(a + b)(x + y)$?

   Ⓐ $(a + b)x + (a + b)y$

   Ⓑ $a(x + y) + b(x + y)$

   Ⓒ $(b + a)(y + x)$

   ⬤ $ax + by$

   Ⓔ $ax + bx + ay + by$

---

2. Bob is going on a trip. He will be taking a taxi, a flight, and then a train. Bob chose the following three companies based on their claims.

   • Tom's Taxi Service claims that it is on time 95 percent of the time.

   • Friendly Flyer Airlines claims that it is on time 93 percent of the time.

   • Rapid Railways claims that it is on time 98 percent of the time.

   Based on the three companies' claims, what is the approximate probability that all three parts of Bob's trip will be on time, assuming that all three probabilities are independent?

   Answer: _____

   Answer: 87% or 0.87 (Accept answers from 0.86 to 0.87, inclusive.)

   Solution (not required in response):

   $0.95 \times 0.93 \times 0.98 = 0.8658 \approx 0.87$

GO ON TO THE NEXT PAGE

3. Prove that $\overline{AC} = \overline{DC}$ and give a reason for each statement in your proof.
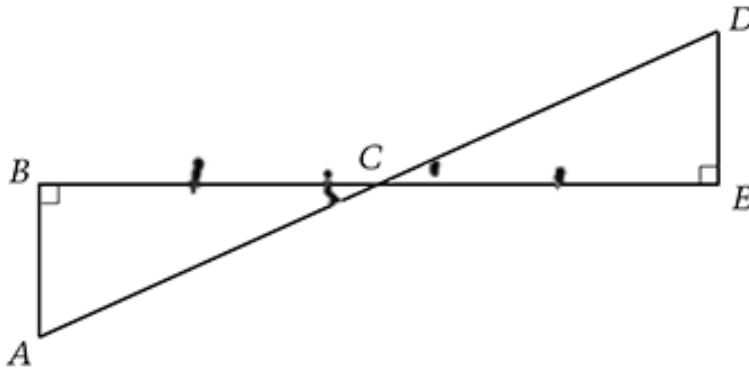
Given: C is the midpoint of $\overline{BE}$.
$\angle B$ and $\angle E$ are right angles.

Correct Answer:

$\overline{BC} \cong \overline{EC}$ ——————— definition of midpoint
$\angle BCA \cong \angle ECD$ —— vertical angles are equal
$\angle B \cong \angle E$ ——— given
$\triangle ABC \cong \triangle DEC$ —— Angle Side Angle theorem
$\overline{AC} \cong \overline{DC}$ —————— Corresponding parts of congruent
triangles are congruent

STOP

The Reading Assessment

Grade 12

The NAEP reading assessment measures students' ability to understand, to interpret, and to think critically about different types of texts. Recognizing that readers vary their approach according to the demands of different types of text, the NAEP framework specifies the assessment of reading in two distinct types of text—literary and informational text. The assessment includes reading materials selected from publications and other resources typically available to students in and out of school.

The Reading Framework for the 2011 National Assessment of Educational Progress is the same as the framework for the 2009 reading assessment, which replaced a framework that was first developed for the 1992 assessment. The 2011 NAEP reading framework includes

- an assessment design based on current scientific reading research,

- consistency with the *Elementary and Secondary Education Act Reauthorization of 2001* (No Child Left Behind) legislation,

- use of international reading assessments to inform the NAEP framework,

- a focused measurement of vocabulary,

- objective measurements of reading behaviors (cognitive targets), and

- distinction of cognitive targets relevant to literary and informational text.

The NAEP reading assessment contains multiple-choice questions, as well as short and extended constructed-response questions. Students spend approximately 50 to 60 percent of their assessment time providing written answers to constructed-response questions. For more information regarding the reading assessment framework, visit http://www.nagb.org/publications/frameworks.htm.

NAEP Reading Framework
Distribution of Question Pool Across Reading Contexts

	Grade 12
Literary Text	30%
Informational Text	70%

Reading Assessment Booklet Directions

In each of the next two sections, you will have 25 minutes to read one or two passages and to answer questions about what you have read.

You will be asked to respond to two types of questions. The first type of question requires you to choose the best answer and fill in the oval for that answer in your booklet. Some questions of this type will ask you about the meaning of a word as it is used in the passage.

The other type of question requires you to write your answer on the blank lines in your booklet. Some questions of this type will ask you to write a short answer and some questions will ask you to write a longer answer.

Think carefully about each question. When you are writing your response, make your answer as complete as possible. Be sure your handwriting is clear. Use as many lines as you need.

Here is an example of a question that requires you to write a short answer.

Describe your reaction to reading the story, and what was it about the story that made you react that way?

I thought it was a very sweet, but sad story. It was sad because the grandmother dies, but sweet that the grandmother and grandaughter had such a wonderful relationship.

Here is an example of a question that requires you to write a long answer.

Some people say that the grandmother's statement "I'm keeping in the eyes of your time" contains the key to what the story means. Do you agree or disagree with this statement? Explain why, using evidence from the story.

I would have to agree with that statement. I believe the statement is saying that, as far as she's concerned she will always be in her memory during her life. That is maybe another reason why she gave her the photo albums, so she would have something to remember her by after she dies. The grandmother doesn't want her death be the end of her in her grand daughters life.

You may go back to the passage when answering the questions.

If you finish before time is called, read over your work to be sure you have provided your best answer.

STOP

Sample Reading Questions
Grade 12 Reading Selection

The Open Window
by Saki (H. H. Munro) (1870–1916)

"My aunt will be down presently, Mr. Nuttel," said a very self-possessed young lady of fifteen; "in the meantime you must try and put up with me."

Framton Nuttel endeavored to say the correct something which should duly flatter the niece of the moment without unduly discounting the aunt that was to come. Privately he doubted more than ever whether these formal visits on a succession of total strangers would do much towards helping the nerve cure which he was supposed to be undergoing.

"I know how it will be," his sister had said when he was preparing to migrate to this rural retreat; "you will bury yourself down there and not speak to a living soul, and your nerves will be worse than ever from moping. I shall just give you letters of introduction to all the people I know there. Some of them, as far as I can remember, were quite nice."

Framton wondered whether Mrs. Sappleton, the lady to whom he was presenting one of the letters of introduction, came into the nice division.

"Do you know many of the people round here?" asked the niece, when she judged that they had had sufficient silent communion.

"Hardly a soul," said Framton. "My sister was staying here, at the rectory, you know, some four years ago, and she gave me letters of introduction to some of the people here."

He made the last statement in a tone of distinct regret.

"Then you know practically nothing about my aunt?" pursued the self-possessed young lady.

"Only her name and address," admitted the caller. He was wondering whether Mrs. Sappleton was in the married or widowed state. An undefinable something about the room seemed to suggest masculine habitation.

"Her great tragedy happened just three years ago," said the child; "that would be since your sister's time."

"Her tragedy?" asked Framton; somehow in this restful country spot tragedies seemed out of place.

"You may wonder why we keep that window wide open on an October afternoon," said the niece, indicating a large French window that opened onto a lawn.

"It is quite warm for the time of the year," said Framton; "but has that window got anything to do with the tragedy?"

"Out through that window, three years ago to a day, her husband and her two young brothers went off for their day's shooting. They never came back. In crossing the moor to their favorite snipe-shooting ground they were all three engulfed in a treacherous piece of bog. It had been that dreadful wet summer, you know, and places that were safe in other years gave way suddenly without warning. Their bodies were never recovered. That was the dreadful part of it." Here the child's voice lost its self-possessed note and became falteringly human. "Poor aunt always thinks that they will come back someday, they and the little brown spaniel that was lost with them, and walk in at that window just as they used to do. That is why the window is kept open every evening till it is quite dusk. Poor dear aunt, she has often told me how they went out, her husband with his white waterproof coat over his arm, and Ronnie, her youngest brother, singing, 'Bertie, why do you bound?' as he always did to tease her, because she said it got on her nerves. Do you know, sometimes on still, quiet evenings like this, I almost get a creepy feeling that they will all walk in through that window—"

She broke off with a little shudder. It was a relief to Framton when the aunt bustled into the room with a whirl of apologies for being late in making her appearance.

"I hope Vera has been amusing you?" she said.

"She has been very interesting," said Framton.

"I hope you don't mind the open window," said Mrs. Sappleton briskly; "my husband and brothers will be home

directly from shooting, and they always come in this way. They've been out for snipe in the marshes today, so they'll make a fine mess over my poor carpets. So like you menfolk, isn't it?"

She rattled on cheerfully about the shooting and the scarcity of birds, and the prospects for duck in the winter. To Framton it was all purely horrible. He made a desperate but only partially successful effort to turn the talk onto a less ghastly topic; he was conscious that his hostess was giving him only a fragment of her attention, and her eyes were constantly straying past him to the open window and the lawn beyond. It was certainly an unfortunate coincidence that he should have paid his visit on this tragic anniversary.

"The doctors agree in ordering me complete rest, an absence of mental excitement, and avoidance of anything in the nature of violent physical exercise," announced Framton, who labored under the tolerably widespread delusion that total strangers and chance acquaintances are hungry for the least detail of one's ailments and infirmities, their cause and cure. "On the matter of diet they are not so much in agreement," he continued.

"No?" said Mrs. Sappleton, in a voice which only replaced a yawn at the last moment. Then she suddenly brightened into alert attention—but not to what Framton was saying.

"Here they are at last!" she cried. "Just in time for tea, and don't they look as if they were muddy up to the eyes!"

Framton shivered slightly and turned towards the niece with a look intended to convey sympathetic comprehension. The child was staring out through the open window with a dazed horror in her eyes. In a chill shock of nameless fear Framton swung round in his seat and looked in the same direction.

In the deepening twilight three figures were walking across the lawn towards the window; they all carried guns under their arms, and one of them was additionally burdened with a white coat hung over his shoulders. A tired brown spaniel kept close at their heels. Noiselessly they neared the house, and then a

hoarse young voice chanted out of the dusk: "I said, Bertie, why do you bound?"

Framton grabbed wildly at his stick and hat; the hall door, the gravel drive, and the front gate were dimly noted stages in his headlong retreat. A cyclist coming along the road had to run into the hedge to avoid imminent collision.

"Here we are, my dear," said the bearer of the white mackintosh, coming in through the window; "fairly muddy, but most of it's dry. Who was that who bolted out as we came up?"

"A most extraordinary man, a Mr. Nuttel," said Mrs. Sappleton; "could only talk about his illnesses, and dashed off without a word of goodbye or apology when you arrived. One would think he had seen a ghost."

"I expect it was the spaniel," said the niece calmly; "he told me he had a horror of dogs. He was once hunted into a cemetery somewhere on the banks of the Ganges by a pack of pariah dogs, and had to spend the night in a newly dug grave with the creatures snarling and grinning and foaming just above him. Enough to make anyone lose their nerve."

Romance at short notice was her specialty.

VC100930

The following multiple-choice question with the correct answer is based on the reading selection and can be found along with other examples at the NAEP Questions Tool (http://nces.ed.gov/nationsreportcard/itmrlsx).

1. Which of the following best describes what happens in the story?

Ⓐ A young man visits his aunt and tells her about a recent tragedy.

Ⓑ A young girl amuses her family by telling them scary stories.

⬤ A young girl makes up a story and frightens a nervous visitor.

Ⓓ A family plays a trick on a young man from out of town.

The following constructed-response questions, based on the reading selection, show example answers from students in previous NAEP assessments, along with the scoring level and description of answers at each level. Please note that constructed-response questions may be scored on different scales (e.g., acceptability of response, level of comprehension, or the extensiveness of the response). Visit the NAEP Questions Tool for additional sample constructed-response questions and student responses at http://nces.ed.gov/nationsreportcard/itmrlsx.

Example of full comprehension response—Student Response:

2. Using specific details from the story, explain what Vera does or says to make Framton believe her.

> Vera makes Framton believe her while she was telling the story her voice lost its self-possessed quality and actually became human. She also broke off the story ending with a shudder. She is a very believable person and very good at lying.

Score and Description

The full comprehension response above uses specific details from the story to explain how Vera made Framton believe her. It describes the way in which Vera told her story in order for it to be convincing.

Full comprehension responses use specific details from the story to explain what Vera does or says to make Framton believe her.

- Vera talks about how they will come in the window at any moment, then she breaks off with a shudder.
- She uses details that are real, like how the one man had a white rain coat over his arm and she used a song she knew the man would be singing.
- Vera makes her voice sound "falteringly human" and makes it sound like her aunt is deluded in believing her husband will return.

Example of partial comprehension response—Student Response:

2. Using specific details from the story, explain what Vera does or says to make Framton believe her.

> She is believable by providing details and
> getting to Framton before her aunt can.
> She lays out the whole story and brings
> emotion into it.

Score and Description

a) Partial comprehension responses provide a text-based generalization to explain what Vera does or says to make Framton believe her.
  • Part of Vera's story is false, but part of it is true, so Framton is convinced.
  • Vera's voice is emotional when she tells her story.

OR

b) Partial comprehension responses provide a detail from the story that is related to Vera convincing Framton of her story but do not offer an explanation.
  • She mentions the dog and the white coat and I think that's what did it for him.
  • She calls attention to the window.

Example of little or no comprehension—Student Response:

2. Using specific details from the story, explain what Vera does or says to make Framton believe her.

> She's a very convincing person, very deceitful

Score and Description

The response describes Vera as convincing, but does not explain how Vera is convincing. Responses at this level demonstrate little or no understanding of how Vera convinces Framton of her story. Responses may provide irrelevant details or personal opinions or simply repeat the question.

  • Vera never convinces Framton.
  • Vera tells a believable story.
  • She uses lots of details.
  • "Here they are at last!" she cried. "Just in time for tea."
  • Framton shivered slightly and turned toward the niece.

STOP

Example of extensive response—Student Response:

3. One critic described Saki as an author who uses both comedy and horror in his writing. Using specific references to the story, explain how the critic's description applies to "The Open Window."

Saki uses horror at first, when Vera describes the tragic tale of Mrs. Sappleton's family. She creates a detailed story, and the reader believes it as well. The terror grows as Mrs. Sappleton acts as though nothing has happened. When her sons and husbands come walking back, it appears to the reader as though the figures are terrifying ghosts. The ending is full of comic relief, however, when you realize that it all was merely a trick from Vera.

Score and Description

Responses at the extensive level demonstrate understanding of how the author (Saki) uses comedy and horror in his story. They recognize two things: that the reader of Saki's story is at first taken in by Vera's horror story; and, that comedy is achieved by the revelation of Vera's story being untrue. Specific references to the story are used to explain both comedy and horror.
  • Saki begins with horror, making the reader, along with Framton, believe a chilling story about the tragic death of three hunters and their dog who died in a bog while hunting and whose bodies were never found. At the end you realize that the story was untrue and it all turns to comedy.
  • The critic's description does apply. There is both comedy as well as horror. Up until the very end of the story you do not realize the girl was lying. I certainly believed her. That's comedy. The rest was horror because at first I thought they were really ghosts.

Example of essential response—Student Response:

3. One critic described Saki as an author who uses both comedy and horror in his writing. Using specific references to the story, explain how the critic's description applies to "The Open Window."

> The comedy is shown when you find out it was a practical joke. The horror is shown when the young girl tells the sad story about her uncles.

Score and Description

a) Responses at the essential level demonstrate understanding of how the author (Saki) uses comedy or horror in his story. Responses recognize that Vera's story is used to affect the reader as well as Framton or that the comedy results from the reader realizing that the story was untrue.
- The reader experiences the horror of the supposed tragedy when Vera tells the story of the hunters.
- The comedy is revealed when the readers discover that the whole thing was a trick made up by the little girl in the story.

OR

b) Responses at the essential level demonstrate a general understanding that the author uses horror to create comedy.
- Saki uses fear to create humor. He instills fear in the main character and the reader until the end when the reader discovers the true motive of Vera.

Example of partial response—Student Response:

3. One critic described Saki as an author who uses both comedy and horror in his writing. Using specific references to the story, explain how the critic's description applies to "The Open Window."

> In the Story Framton has a nerve disorder and he is told that the husband and brother are most likely dead, but they return which scares Framton and he runs out of the house and is almost hit by a biker.

Score and Description

Partial responses demonstrate understanding of what in the plot is comedy and/or what in the plot is horror. They do not recognize that Saki uses Vera's story to affect the reader or that he uses horror to create comedy.

- The horror in the story is when the three men were supposed to be dead but they came walking up to the house. The comedy is that Vera lied to Framton and he ran out scared, because he thought they were ghosts but they really weren't.

Unsatisfactory - Student Response

3. One critic described Saki as an author who uses both comedy and horror in his writing. Using specific references to the story, explain how the critic's description applies to "The Open Window."

In the little girls story she knows about how her aunt leaves the window open so her husband and son come thought. But really the window wes open for good weather. So the window is open then the girl tells the story of them being dead

Score and Description

Unsatisfactory responses do not demonstrate understanding of comedy or horror in the story. They may provide story details that do not answer the question, may misinterpret Vera's horror story as real plot events, or may provide personal opinions about the characters.

- The three men came walking along the lawn.
- It's funny when he writes "Bertie, where art thou bound?"
- I think Vera was unkind to Framton and that wasn't funny.

STOP

III. Informational Questionnaire

Grade 12

DIRECTIONS

In the next sections, you will be asked questions about yourself and your education. The choices for some questions will be written across the page as shown. Fill in the oval for the best answer.

Example 1

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day
1. How often do you watch movies on TV?	Ⓐ	Ⓑ	Ⓒ	Ⓓ

You should have filled in the oval below the answer that best tells how often you watch movies on TV.

The choices for some questions will be written down the page as shown. Now read Example 2 and indicate your answer.

Example 2

2. Which event would you prefer to attend?
   Ⓐ basketball game

   Ⓑ car show

   Ⓒ concert

   Ⓓ play

Make your answer mark clear and dark in the oval. If you make a mistake or want to change your answer, be sure to completely erase any unwanted marks.

STOP

Do not go past the 🛑 **sign at the end of each section until you are told to do so.**
If you finish before time is called, go back and check your work on that section only. Use your time carefully. Do as much as you can in each section.

GO ON TO THE NEXT PAGE

In this section, please tell us about yourself and your family. Please answer questions about your home based on where you live most of the time during the school year. The section has 15 questions. Mark your answers in your booklet. Fill in only **one** oval for each question except where instructed otherwise.

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

    Ⓐ 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.**

    Ⓐ White

    Ⓑ Black or African American

    Ⓒ Asian

    Ⓓ American Indian or Alaska Native

    Ⓔ Native Hawaiian or other Pacific Islander

GO ON TO THE NEXT PAGE

VB331335

3. About how many books are there in your home?

Ⓐ Few (0–10)

Ⓑ Enough to fill one shelf (11–25)

Ⓒ Enough to fill one bookcase (26–100)

Ⓓ Enough to fill several bookcases (more than 100)

VB331336

4. Is there a computer at home that you use?

Ⓐ Yes

Ⓑ No

VF098664

5. Do you have the following in your home? Fill in ovals for **all** that apply.

Ⓐ Access to the Internet

Ⓑ Clothes dryer just for your family

Ⓒ Dishwasher

Ⓓ More than one bathroom

Ⓔ Your own bedroom

TB001101

6. About how many pages a day do you have to read in school and for homework?

Ⓐ 5 or fewer

Ⓑ 6–10

Ⓒ 11–15

Ⓓ 16–20

Ⓔ More than 20

VB331339

7. How often do you talk about things you have studied in school with someone in your family?

Ⓐ Never or hardly ever

Ⓑ Once every few weeks

Ⓒ About once a week

Ⓓ Two or three times a week

Ⓔ Every day

VB331447

8. How many days were you absent from school in the last month?

Ⓐ None

Ⓑ 1 or 2 days

Ⓒ 3 or 4 days

Ⓓ 5 to 10 days

Ⓔ More than 10 days

GO ON TO THE NEXT PAGE

VB330870

9. How far in school did your mother go?

 Ⓐ She did not finish high school.

 Ⓑ She graduated from high school.

 Ⓒ She had some education after high school.

 Ⓓ She graduated from college.

 Ⓔ I don't know.

VB330871

10. How far in school did your father go?

 Ⓐ He did not finish high school.

 Ⓑ He graduated from high school.

 Ⓒ He had some education after high school.

 Ⓓ He graduated from college.

 Ⓔ I don't know.

VB331451

11. How often do people in your home talk to each other in a language other than English?

 Ⓐ Never

 Ⓑ Once in a while

 Ⓒ About half of the time

 Ⓓ All or most of the time

VF095730

12. Do the following people live in your home? Fill in ovals for **all** that apply.

 Ⓐ Mother

 Ⓑ Stepmother

 Ⓒ Foster mother or other female legal guardian

 Ⓓ Father

 Ⓔ Stepfather

 Ⓕ Foster father or other male legal guardian

GO ON TO THE NEXT PAGE

VF291224

13. During this school year, which of the following have you done? Fill in ovals for **all** that apply.

Ⓐ Taken the SAT or ACT College Entrance Exams

Ⓑ Submitted the Free Application for Federal Student Aid (FAFSA)

Ⓒ Applied to a 2-year college

Ⓓ Been accepted to a 2-year college

Ⓔ Applied to a 4-year college

Ⓕ Been accepted to a 4-year college

Ⓖ Applied to a certificate or diploma program at a school that provides occupational training (such as electrician, beautician, mechanic, computer programmer, etc.)

Ⓗ Been accepted to a technical training program

Ⓘ Talked with a military recruiter

Ⓙ Enlisted in the military

Ⓚ Applied for a full-time job

Ⓛ Been interviewed for a full-time job

Ⓜ None of the above

HE002549

14. Which of the following best describes your high school program?

Ⓐ General

Ⓑ Academic or college preparatory

Ⓒ Vocational or technical

VE102537

15. Write the ZIP code of your home address in the boxes.

[ ] [ ] [ ] [ ] [ ]

STOP

IV. Subject Questionnaires
Mathematics
Grade 12

This section has 18 questions. Mark your answers in your booklet. Fill in only **one** oval for each question except where instructed otherwise.

VC298762

1. Which courses have you taken from eighth grade to the present? If you have taken a course more than once, give the **most recent** year you took it. Fill in **one** oval on each line. INCLUDE courses taken in summer school, but DO NOT INCLUDE topics that were only taught as part of a longer course (such as trigonometry taught in drafting class or computer programming taught in Algebra II).

	I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I took this course in Grade 12.	
a. **Basic** or **general** mathematics course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC298769
b. **Tech-prep** mathematics, **business** mathematics, **consumer** mathematics, or other **applied mathematics** course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC298847
c. **Introduction to algebra** or **pre-algebra** course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299007
d. **Algebra I** course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299008
e. **Geometry** course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299009
f. **Algebra II** course, **with or without trigonometry**	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299010
g. **Trigonometry** (as a separate course)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299012
h. **Pre-calculus** course (also called introductory analysis)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE593389
i. **Integrated** mathematics 1 (first year of a multi-year course)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VF269035
j. **Integrated** mathematics 2 (second year of a multi-year course)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VF269036

	I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I took this course in Grade 12.	
k. **Integrated** mathematics 3 (third year of a multi-year course)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VF269037
l. **Integrated** mathematics 4 (fourth year of a multi-year course)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VF269038
m. **Probability or statistics** course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299032
n. **Calculus** course	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VC299033
o. **Computer programming** course (such as C++, Visual Basic, etc.)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE593398
p. **Other** mathematics course (specify): _____	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	VE593395

_____

VE593403

2. Are you currently enrolled in or have you taken any of the following Advanced Placement (AP®) courses? Fill in ovals for **all** that apply.

Ⓐ Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus AB.

Ⓑ Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus BC.

Ⓒ Yes, I am enrolled in or have taken Advanced Placement (AP) Statistics.

Ⓓ No, I have not taken any of the courses listed above.

VE593756

3. Are you currently enrolled in or have you taken an International Baccalaureate® (IB) mathematics course?

Ⓐ Yes

Ⓑ No

VB543297

4. Are you currently enrolled in or have you taken any **online** mathematics courses for **high school or college credit**?

Ⓐ Yes

Ⓑ No

VC288225

5. Was there a mathematics course that you would have liked to have taken this school year but did not take?

Ⓐ Yes, but my school does not offer the course.

Ⓑ Yes, but the course was full.

Ⓒ Yes, but I did not have the necessary prerequisites.

Ⓓ Yes, but my schedule was full.

Ⓔ No, there was no other course that I wanted to take.

VC189706

6. Please indicate how much you DISAGREE or AGREE with the following statements. Fill in **one** oval on each line.

	Strongly disagree	Disagree	Agree	Strongly agree	
a. Mathematics is one of my favorite subjects.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC189711
b. I take mathematics because it will help me in the future.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC189713
c. I take mathematics to meet my high school graduation requirements.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE634987

VB517284

7. Are you currently taking a mathematics course?

Ⓐ Yes ➔ *Go to Question 8.*

Ⓑ No ➔ *Skip to Question 15.*

VE634875

8. How often do you receive help or tutoring with mathematics outside of your regular mathematics class?

Ⓐ Never or hardly ever

Ⓑ Once or twice a month

Ⓒ Once or twice a week

Ⓓ Every day or almost every day

VC497572

9. How often do you feel the following way in your mathematics class? Fill in **one** oval on each line.

	Never or hardly ever	Sometimes	Often	Always or almost always	
a. I have a clear understanding of what my mathematics teacher is asking me to do.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497573
b. The mathematics work is too easy.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497574
c. The mathematics work is challenging.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497575
d. The mathematics work is engaging and interesting.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC497576
e. I am learning mathematics.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593449

GO ON TO THE NEXT PAGE

VB517159

10. How often do you use these different types of calculators in your mathematics class? Fill in **one** oval on each line.

	Never Use	Sometimes, but not often	Usually use	
				VB517160
a. Basic four-function (addition, subtraction, multiplication, division)	Ⓐ	Ⓑ	Ⓒ	
b. Scientific (not graphing)	Ⓐ	Ⓑ	Ⓒ	VB517161
c. Graphing	Ⓐ	Ⓑ	Ⓒ	VB517282

VE593461

11. How often do you use a calculator to perform the following tasks for the mathematics course you are currently taking? Fill in **one** oval on each line.

	Never or hardly ever	Sometimes	Often	Always or almost always	
a. To perform basic numeric operations	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593464
b. To graph equations or inequalities	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593465
c. To evaluate functions (e.g., exponential, logarithmic, trigonometric)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593466
d. To calculate probabilities or statistical measures	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593467
e. To create statistical representations (charts and graphs, etc.)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593469
f. To use a computer algebra system (CAS)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593471
g. To perform matrix operations	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593472
h. To perform business/financial calculations	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593473
i. To explore geometric concepts	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE593474

GO ON TO THE NEXT PAGE

VB517158

12. When you take a mathematics test or quiz, how often do you use a calculator?

Ⓐ Never

Ⓑ Sometimes

Ⓒ Always

VB543155

13. When you are doing mathematics for school or homework, how often do you use these **different types of computer programs**? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. A spreadsheet program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF094885
b. A database program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF094889
c. A mathematics tutorial program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE593747
d. A graphing program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE593748
e. A statistical program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE593749
f. A dynamic geometry program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE593753
g. A computer algebra system (CAS)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE593754

GO ON TO THE NEXT PAGE

VC189613

14. How often do you use e-mail, instant messages, blogs, or text messages to do any of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. Talk online with friends about mathematics work	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC299268
b. Get help with mathematics from someone other than your teacher, family, classmates, or friends	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC189627

VE593425

15. What kind of calculator did you use for this test?

   Ⓐ I did not use a calculator for this test.

   Ⓑ NAEP-provided scientific calculator

   Ⓒ Scientific (not graphing) calculator

   Ⓓ Graphing calculator (with or without a computer algebra system [CAS])

VB595182

16. How hard was this test compared to most other tests you have taken this year in school?

   Ⓐ Easier than other tests

   Ⓑ About as hard as other tests

   Ⓒ Harder than other tests

   Ⓓ Much harder than other tests

VC034559

17. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

   Ⓐ Not as hard as on other tests

   Ⓑ About as hard as on other tests

   Ⓒ Harder than on other tests

   Ⓓ Much harder than on other tests

VB595184

18. How important was it to you to do well on this test?

   Ⓐ Not very important

   Ⓑ Somewhat important

   Ⓒ Important

   Ⓓ Very important

STOP

Reading

Grade 12

This section has 13 questions. Mark your answers in your booklet. Fill in only **one** oval for each question except where instructed otherwise.

VB345622

1. Please indicate how much you DISAGREE or AGREE with the following statements about reading and writing. Fill in **one** oval on each line.

	Strongly disagree	Disagree	Agree	Strongly agree	
a. When I read books, I learn a lot.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VB345623
b. Reading is one of my favorite activities.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VB345624
c. Reading is enjoyable.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE633189

VB379288

2. How often do you 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	Almost every day	
a. Read for fun on your own time	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VB379289
b. Talk with your friends or family about something you have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VB379290

VB345648

3. For your **English** class so far this year, how many times have you done each of the following? Fill in **one** oval on each line.

	Never	Once	2 or 3 times	4 or 5 times	6 or more times	
a. Made a presentation to the class about something that you have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB345650
b. Done a project about something that you have read (for example, written a play, created a website)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB345651

GO ON TO THE NEXT PAGE

VE634877

4. How often do you receive help or tutoring with reading outside of your regular English/language arts class?

    Ⓐ Never or hardly ever

    Ⓑ Once or twice a month

    Ⓒ Once or twice a week

    Ⓓ Every day or almost every day

VC504013

5. In your English/language arts class this year, how often does your class 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. Read aloud	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504014
b. Read silently	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504015
c. Discuss new or difficult vocabulary	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504016
d. Explain what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504017
e. Work in pairs or small groups to talk about something that we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589600
f. Read books we have chosen ourselves	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504019
g. Write a paragraph or more about what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589602
h. Discuss different interpretations of what we have read	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504021

VC504022

6. In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do 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. Summarize the passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504023
b. Interpret the meaning of the passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504024
c. Question the motives or feelings of the characters	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504025
d. Identify the main themes or main ideas of the passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589611
e. Evaluate the main arguments or evidence in a persuasive passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589612
f. Analyze the author's organization of information in a passage	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589613
g. Critique the author's craft or technique	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE607938

GO ON TO THE NEXT PAGE

VC504027

7. In your English/language arts class this year, how often do you use a computer 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. Learn and practice vocabulary	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504028
b. Write fictional stories	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589642
c. Write informational reports	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589649
d. Produce multimedia reports/projects	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504031
e. Access reading-related websites (for example, websites with book reviews and lists of recommended books)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504033
f. Conduct research for reading and writing projects	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VC504034
g. Read books or articles using a digital media device, such as an e-book reader or tablet computer	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE589651

VE626880

8. Are you currently enrolled in or have you taken an Advanced Placement (AP®) course in English/language arts? Fill in ovals for **all** that apply.

ⓐ Yes, I am enrolled in or have taken Advanced Placement (AP) English **Language** and Composition.

ⓑ Yes, I am enrolled in or have taken Advanced Placement (AP) English **Literature** and Composition.

ⓒ No, I have never taken an Advanced Placement (AP) English/language arts course.

VE589658

9. Are you currently enrolled in or have you taken the International Baccalaureate® (IB) Language A1 course?

ⓐ Yes

ⓑ No

VC293008

10. Are you currently enrolled in or have you taken any online English/language arts courses for high school or college credit?

ⓐ Yes

ⓑ No

VB595182

11. How hard was this test compared to most other tests you have taken this year in school?

ⓐ Easier than other tests

ⓑ About as hard as other tests

ⓒ Harder than other tests

ⓓ Much harder than other tests

VC034559

12. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

ⓐ Not as hard as on other tests

ⓑ About as hard as on other tests

ⓒ Harder than on other tests

ⓓ Much harder than on other tests

VB595184

13. How important was it to you to do well on this test?

ⓐ Not very important

ⓑ Somewhat important

ⓒ Important

ⓓ Very important

STOP

V. NAEP Questions Tool

Introduction

After every assessment cycle, NAEP releases a portion of the assessment to the public. The NAEP Questions Tool (NQT) allows users to search for questions by subject, grade, difficulty, and other characteristics. You can also view scoring guides, keys, national performance data, demographic group data, and student responses (for constructed-response questions only). The tool also allows users to create customized reports and to print selected questions and all relevant information. The purpose of the NQT is to provide teachers, researchers, educators, and the public with greater access to NAEP assessment exercises.

How do I access the NAEP Questions Tool?

Visit the NQT at http://nces.ed.gov/nationsreportcard/itmrlsx. The tool can also be accessed by clicking "Sample Questions" on The Nation's Report Card home page.

How do I learn to use the NAEP Questions Tool?

View a short video showing the features of NQT and how to use them, a more detailed tutorial, and a Quick Reference Guide at NAEP Website Tools and Applications (http://nces.ed.gov/nationsreportcard/about/naeptools.asp#qrg). There is also a "What can I do here?" link and a Help button on every page.

Where can I find more information about the subjects NAEP assesses?

The NAEP website contains a wealth of information about the subjects NAEP assesses. The URL for the site is http://nces.ed.gov/nationsreportcard/.

How can I get additional help?

For more help with features on the NAEP website, click Help in the banner.

For additional help, write to us via Contact Us at http://nces.ed.gov/nationsreportcard/contactus.asp, or e-mail Sherran.Osborne@ed.gov.

VI. About NAEP

NAEP OVERVIEW. NAEP is the largest continuing and nationally representative assessment of what our nation's students know and can do in various academic subjects. NAEP is administered by the National Center for Education Statistics within the Institute of Education Sciences of the U.S. Department of Education. For more information about the NAEP program, visit the NAEP website at http://nces.ed.gov/nationsreportcard or call 202–502–7420.

PARTICIPATION. States and districts that receive Title I funds are required to participate in biennial NAEP reading and mathematics assessments at grades 4 and 8. Student participation is always voluntary. Contact your school's NAEP coordinator for more information.

NAEP CONTENT. The National Assessment Governing Board sets policy for NAEP and oversees the creation of the NAEP frameworks, which describe the specific knowledge and skills that should be assessed. For additional information on framework development, see the Governing Board's website at http://www.nagb.org/publications/frameworks.htm.

NAEP SAMPLE QUESTIONS. For each assessment, some of the test questions, along with performance data, are made available to the public to provide concrete samples of NAEP contents and results. For every assessment, NAEP distributes sample questions booklets to participating schools that provide more detailed information about the assessment design and questions. Released questions and student performance data may be viewed and downloaded from the NCES website at http://nces.ed.gov/nationsreportcard/itmrlsx.

NAEP SECURE QUESTIONS. On written request, adults may review NAEP questions and instruments still in use. These arrangements must be made in advance, and persons reviewing the assessment may not remove the booklets from the room, copy them, or take notes. Contact your school's NAEP coordinator for more information.

NAEP PUBLICATIONS. NAEP reports and brochures can be searched and downloaded from the NAEP website at http://nces.ed.gov/nationsreportcard.

FOR FURTHER INFORMATION. For prompt field staff support on these or other matters, call the NAEP Help Desk at 800–283–6237.