

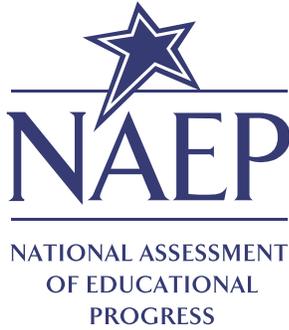
GRADE 12

MATHEMATICS | READING | SCIENCE

Sample Questions

General Information About The Nation's Report Card

2015



Admin Form Line # from Session #

2015 SECTION **Mathematics**
Grade 12 1 | MXX **Book**
2 | MXX
3 | D1 **M1XXXXXX**
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School Information

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National Assessment of Educational Progress

2015 Grade 12 Sample Questions Booklet

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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 assessments in mathematics, reading, and science. 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 contextual questionnaires.

NAEP results are reported for the nation, states, and selected large urban districts, but not for individual schools or students. Answers to all student questions are confidential, and student names are removed from all assessment materials before leaving the school. Results of the 2015 mathematics, reading, and science assessments will be reported as The Nation's Report Card. Assessment results are widely discussed in the press and are used by elected officials, 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 related to students' learning. This booklet includes these questionnaires as well as sample questions for mathematics, reading, and science 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 the NAEP Questions Tool (<http://nces.ed.gov/nationsreportcard/nqt>), which allows you to review additional sample questions with sample answers.

Peggy G. Carr, Ph.D.
Acting Commissioner
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. 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.

Mathematics

Grade 12

The 2015 NAEP mathematics assessment 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 is a measure of the level of demand placed on a student's thinking in order to answer a question correctly.

The NAEP 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, protractors, and other ancillary materials such as geometric shapes, in some parts of the assessment, but not all.

Calculator use is permitted on approximately 35 percent of the test questions. At grade 12, students may use their own scientific or graphing calculators, with some restrictions for test security purposes. (Students who do not bring their own calculator are provided with a scientific calculator.) 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 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%

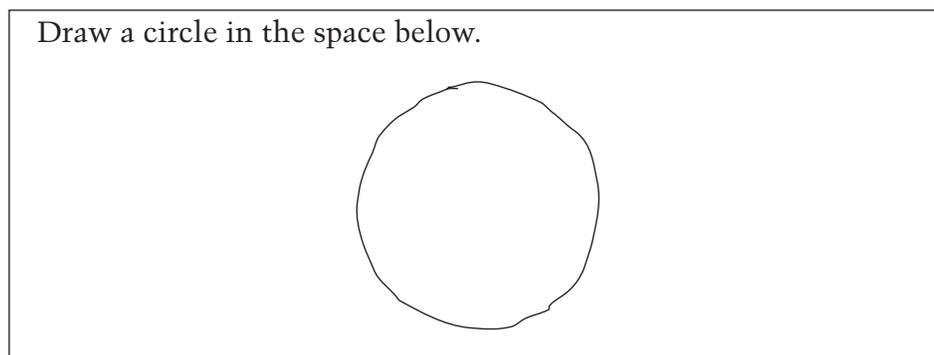
* These two content areas at grade 12 are combined because "this reflects the fact that the majority of measurement topics suitable for twelfth-grade students are geometric in nature" (*Mathematics Framework for the 2011 National Assessment of Educational Progress*, p.5).

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.



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  sign at the end of each section until you are told to do so.



Sample Questions

Grade 12

The following sample questions and correct student responses are available on the NAEP Questions Tool. For additional sample questions and responses, visit <http://nces.ed.gov/nationsreportcard/nqt/>.

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.

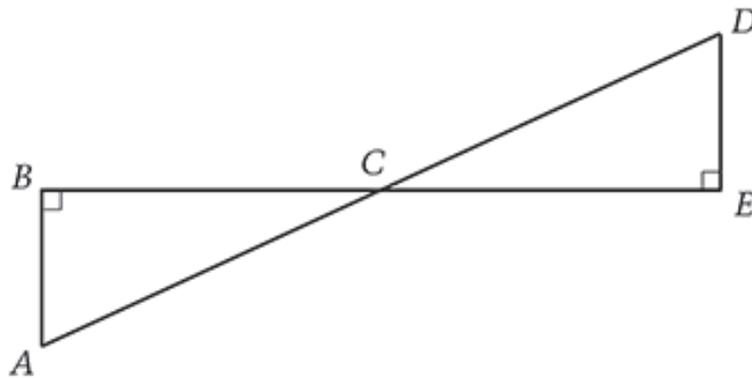
Based on the three companies' claims, what is the approximate probability that all three parts of Bob's trip will be on time, assuming that all three probabilities are independent?

87%

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

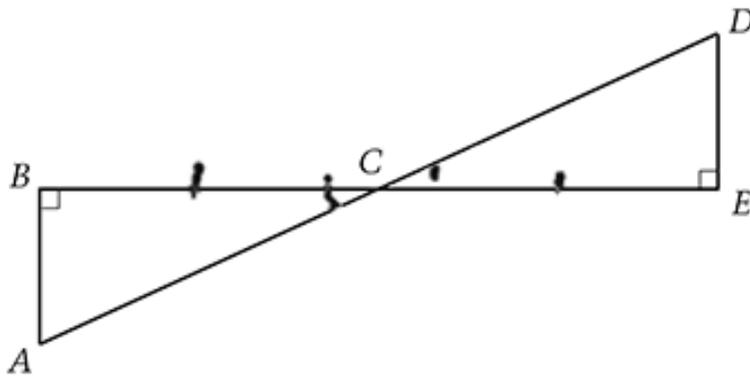
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3.



Given: C is the midpoint of \overline{BE} .
 $\angle B$ and $\angle E$ are right angles.

Prove that $\overline{AC} \cong \overline{DC}$ and give a reason for each statement in your proof.



$\overline{BC} \cong \overline{EC}$ ----- 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



Reading

Grade 12

The 2015 NAEP reading assessment measures students' ability to understand, to interpret, and to think critically about grade-appropriate 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 major text types—literary text 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 NAEP reading assessment conceptualizes reading as a dynamic cognitive process. The framework includes

- an assessment design based on current scientific reading research,
- a focused measurement of vocabulary, and
- objective measurements of reading behaviors (cognitive targets).

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

NAEP Reading Framework
Distribution of Question Pool Across Contexts

Literary text	30%
Informational text	70%

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.

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

Do you think “Summer Adventure” was a good title for the story? Explain why or why not using details from the story.

I think “Summer Adventure”
was a good title for the
story because the main
character, Joe, got to go
on a trip to Alaska
where he saw Mt. McKinley.

GO ON TO THE NEXT PAGE 

Here is an example of a question that requires you to write a longer, more detailed answer.

Joe has different feelings during his trip in Alaska. Describe two different feelings Joe had and explain what caused him to have those feelings.

Joe was lonely when he first arrived in Alaska because he was missing his friends back home, but then he met Jerry and Pat and felt better. When Jerry's parents took them all to Portage Lake, Joe felt excited because they went on a boat ride across a lake filled with icebergs to see the blue glacier.

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.

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.



Sample 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.



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“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



GO ON TO THE NEXT PAGE

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.



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The following sample questions and correct student responses are available on the NAEP Questions Tool. For additional sample questions and responses, visit <http://nces.ed.gov/nationsreportcard/nqt/>.

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.



GO ON TO THE NEXT PAGE

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.

GO ON TO THE NEXT PAGE 

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.



Science

Grade 12

The 2015 NAEP science assessment contains selected-response (multiple-choice) questions, as well as short and extended constructed-response questions. At least 50 percent of the assessment time is devoted to constructed-response questions. These questions measure students' knowledge of facts, ability to integrate this knowledge into larger constructs, and capacity to use the tools, procedures, and reasoning processes of science to develop an increased understanding of the natural world.

The 2015 NAEP science assessment is organized according to science content and practices in the NAEP science framework. For more information regarding the science assessment framework, please visit the Governing Board's website at <http://www.nagb.org/publications/frameworks.htm>.

Science Content

Physical Science (37.5%)*	Life Science (37.5%)*	Earth and Space Science (25%)*
<p>Matter</p> <ul style="list-style-type: none"> • Properties of matter • Changes in matter <p>Energy</p> <ul style="list-style-type: none"> • Forms of energy • Energy transfer and conservation <p>Motion</p> <ul style="list-style-type: none"> • Motion at the macroscopic level • Forces affecting motion 	<p>Structures and Functions of Living Systems</p> <ul style="list-style-type: none"> • Organization and development • Matter and energy transformations • Interdependence <p>Changes in Living Systems</p> <ul style="list-style-type: none"> • Heredity and reproduction • Evolution and diversity 	<p>Earth in Space and Time</p> <ul style="list-style-type: none"> • Objects in the universe • History of the Earth <p>Earth Structures</p> <ul style="list-style-type: none"> • Properties of Earth materials • Tectonics <p>Earth Systems</p> <ul style="list-style-type: none"> • Energy in Earth systems • Climate and weather • Biogeochemical cycles

* Item distribution for the content areas is measured by percentage of student response time.

Science Practices

The framework reflects these four science practices**:

- Identifying Science Principles (20%)
- Using Science Principles (40%)
- Using Scientific Inquiry (30%)
- Using Technological Design (10%)

** Item distribution for the science practices is measured by percentage of student response time.

Booklet Directions

In each of sections 1 and 2, you will have 25 minutes to answer a series of questions about science.

You will be asked to respond to several different types of questions. Some of the questions will require you to choose the best answer and fill in the oval for that answer in your booklet. On questions like this, be sure to mark your answers clearly and darken the oval completely. If you make a mistake or want to change your answer, be sure to erase any unwanted marks. Here is an example of a question that requires you to fill in an oval.

Example 1

How hot is it on the surface of the Sun?

- Ⓐ Not quite as hot as boiling water
- Ⓑ About as hot as fire
- Ⓒ About 100°F
- Ⓓ Much hotter than almost anything on Earth

For some questions, you will be asked to write short answers on the blank lines provided in your booklet. Here is an example of a question that requires you to provide a short answer.

Example 2

Describe one important difference between plants and animals.

Most plants make their
own food, while animals
eat plants and other
animals for food.

GO ON TO THE NEXT PAGE 

Also, you will be asked to answer some questions by writing longer, more detailed responses. For example, here is a question that requires you to provide a longer answer.

Example 3

Describe three things that animals do to survive in areas that have cold winters.

Some animals store a lot
of fat so that they can go
into a deep sleep all winter.
Some animals grow a thick
coat of fur to keep them
warm. Some birds and
butterflies fly away from a
cold area and spend the
winter in a place that is
warm and has a lot of food.

When you are asked to write your response be sure that your handwriting is clear. Think carefully about each question and make your answers as complete as possible, using as many lines as you need. If you finish a section before time is called, you may go back and check your work on that section only.

Finally, in some questions you may be asked to draw a diagram or fill in a table.



Sample Questions

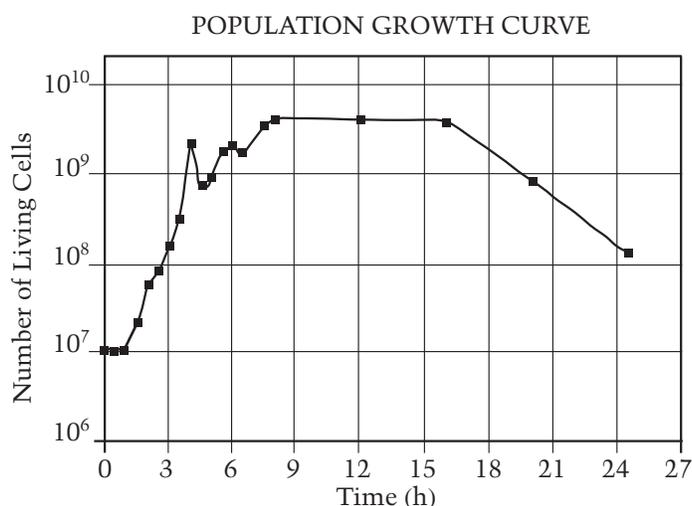
Grade 12

The following sample questions and correct student responses are available on the NAEP Questions Tool. For additional sample questions and responses, visit <http://nces.ed.gov/nationsreportcard/nqt/>.

The following question refers to the growth of bacteria.

A scientist studied the growth rate of a species of bacterium. The scientist introduced some of the bacteria into a flask of nutrient-rich solution and monitored the growth of the bacterial population by measuring the number of living cells in the solution.

The graph below shows the growth of the bacterial population over time in hours (h).



- The scientist wanted to determine the effect of an antibiotic on the growth of the bacterium. To a second flask of nutrient-rich solution with the bacterial cells, he added the antibiotic, and monitored the growth of the bacterial population.

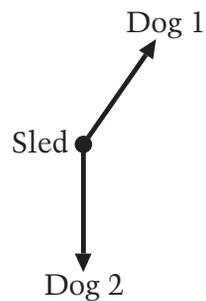
The data showed that most of the bacteria in the solution died, but some survived. The scientist concluded that some of the bacteria were resistant to the antibiotic.

Explain why some of the bacteria were resistant to the antibiotic, based on the theory of evolution.

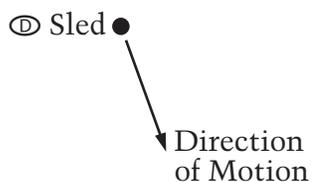
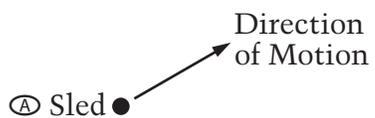
Some bacteria were resistant because of mutations which happened within their DNA, which made them able to withstand the anti biotic, these bacteria then passed the new genes to their offspring

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2. Two dogs pull on a flat-bottom sled with forces of equal magnitude in the directions indicated by the arrows below. The dot represents the sled.



Which arrow best represents the direction of motion of the sled?



GO ON TO THE NEXT PAGE

3. The picture below shows a rock formation with folded layers.

ROCK FORMATION



© travelib europe/Alamy, # A5Dwth

Which statement best explains how the rock layers folded?

- Ⓐ The rock melted and flowed downhill.
- Ⓑ The rock was deformed by a meteorite impact.
- Ⓒ The rock was suddenly pulled apart during an earthquake.
- Ⓓ The rock was slowly compressed due to tectonic plate movement.



III. Contextual Questionnaire

Grade 12

DIRECTIONS

In the next two 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?	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D

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?
<input type="radio"/> A basketball game
<input type="radio"/> B car show
<input type="radio"/> C concert
<input type="radio"/> D 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.

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.



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.

VB331330

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.

VB331331

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

3. About how many books are there in your home? VB331335
- Ⓐ 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)
4. Is there a computer at home that you use? VB331336
- Ⓐ Yes
 - Ⓑ No
5. Do you have the following in your home? Fill in ovals for **all** that apply. VF098664
- Ⓐ Access to the Internet
 - Ⓑ Clothes dryer just for your family
 - Ⓒ Dishwasher
 - Ⓓ More than one bathroom
 - Ⓔ Your own bedroom
6. About how many pages a day do you have to read in school and for homework? TB001101
- Ⓐ 5 or fewer
 - Ⓑ 6–10
 - Ⓒ 11–15
 - Ⓓ 16–20
 - Ⓔ More than 20
7. How often do you talk about things you have studied in school with someone in your family? VB331339
- Ⓐ Never or hardly ever
 - Ⓑ Once every few weeks
 - Ⓒ About once a week
 - Ⓓ Two or three times a week
 - Ⓔ Every day
8. How many days were you absent from school in the last month? VB331447
- Ⓐ None
 - Ⓑ 1 or 2 days
 - Ⓒ 3 or 4 days
 - Ⓓ 5 to 10 days
 - Ⓔ More than 10 days

9. How far in school did your mother go? VB330870
- Ⓐ 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.
10. How far in school did your father go? VB330871
- Ⓐ 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.
11. How often do people in your home talk to each other in a language other than English? VB331451
- Ⓐ Never
 - Ⓑ Once in a while
 - Ⓒ About half of the time
 - Ⓓ All or most of the time
12. Do the following people live in your home? Fill in ovals for **all** that apply. VF095730
- Ⓐ Mother
 - Ⓑ Stepmother
 - Ⓒ Foster mother or other female legal guardian
 - Ⓓ Father
 - Ⓔ Stepfather
 - Ⓕ Foster father or other male legal guardian

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.

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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)	(A)	(B)	(C)	(D)	(E)	(F)	VF269037
l. Integrated mathematics 4 (fourth year of a multi-year course)	(A)	(B)	(C)	(D)	(E)	(F)	VF269038
m. Probability or statistics course	(A)	(B)	(C)	(D)	(E)	(F)	VC299032
n. Calculus course	(A)	(B)	(C)	(D)	(E)	(F)	VC299033
o. Computer programming course (such as C++, Visual Basic, etc.)	(A)	(B)	(C)	(D)	(E)	(F)	VE593398
p. Other mathematics course (specify): _____ _____	(A)	(B)	(C)	(D)	(E)	(F)	VE593395



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.
- VE593403
- A Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus AB.
- B Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus BC.
- C Yes, I am enrolled in or have taken Advanced Placement (AP) Statistics.
- D No, I have not taken any of the courses listed above.
3. Are you currently enrolled in or have you taken an International Baccalaureate[®] (IB) mathematics course?
- VE593756
- A Yes
- B No
4. Are you currently enrolled in or have you taken any **online** mathematics courses for **high school or college credit**?
- VB543297
- A Yes
- B No
5. Was there a mathematics course that you would have liked to have taken this school year but did not take?
- VC288225
- A Yes, but my school does not offer the course.
- B Yes, but the course was full.
- C Yes, but I did not have the necessary prerequisites.
- D Yes, but my schedule was full.
- E 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

VBS17284

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



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	
a. Basic four-function (addition, subtraction, multiplication, division)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	VB517160
b. Scientific (not graphing)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	VB517161
c. Graphing	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	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	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593464
b. To graph equations or inequalities	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593465
c. To evaluate functions (e.g., exponential, logarithmic, trigonometric)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593466
d. To calculate probabilities or statistical measures	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593467
e. To create statistical representations (charts and graphs, etc.)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593469
f. To use a computer algebra system (CAS)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593471
g. To perform matrix operations	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593472
h. To perform business/financial calculations	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593473
i. To explore geometric concepts	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE593474

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	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VF094885
b. A database program	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VF094889
c. A mathematics tutorial program	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VE593747
d. A graphing program	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VE593748
e. A statistical program	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VE593749
f. A dynamic geometry program	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VE593753
g. A computer algebra system (CAS)	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	<input type="radio"/> Ⓔ	VE593754



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 | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VC299268 |
| b. Get help with mathematics from someone other than your teacher, family, classmates, or friends | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VC189627 |

VE593425

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

- A I did not use a calculator for this test.
- B NAEP-provided scientific calculator
- C Scientific (not graphing) calculator
- D Graphing calculator (with or without a computer algebra system [CAS])

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?

- A Not as hard as on other tests
- B About as hard as on other tests
- C Harder than on other tests
- D Much harder than on other tests

VB595184

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

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

- A Easier than other tests
- B About as hard as other tests
- C Harder than other tests
- D Much harder than other tests

- A Not very important
- B Somewhat important
- C Important
- D Very important

VB595182



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.

1. Please indicate how much you DISAGREE or AGREE with the following statements about reading and writing. Fill in **one** oval on each line. VB345622

	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

2. How often do you do each of the following? Fill in **one** oval on each line. VB379288

	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

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. VB345648

	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

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

VE634877

- Ⓐ Never or hardly ever
- Ⓑ Once or twice a month
- Ⓒ Once or twice a week
- Ⓓ Every day or almost every day

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.

VC504013

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Read aloud	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC504014
b. Read silently	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC504015
c. Discuss new or difficult vocabulary	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC504016
d. Explain what we have read	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC504017
e. Work in pairs or small groups to talk about something that we have read	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VE589600
f. Read books we have chosen ourselves	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VC504019
g. Write a paragraph or more about what we have read	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VE589602
h. Discuss different interpretations of what we have read	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	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



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.

VC504027

	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	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC504028
b. Write fictional stories	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE589642
c. Write informational reports	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE589649
d. Produce multimedia reports/projects	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC504031
e. Access reading-related websites (for example, websites with book reviews and lists of recommended books)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC504033
f. Conduct research for reading and writing projects	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC504034
g. Read books or articles using a digital media device, such as an e-book reader or tablet computer	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VE589651

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. VE626880
- Ⓐ 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.
9. Are you currently enrolled in or have you taken the International Baccalaureate[®] (IB) Language A1 course? VE589658
- Ⓐ Yes
 - Ⓑ No
10. Are you currently enrolled in or have you taken any online English/language arts courses for high school or college credit? VC293008
- Ⓐ Yes
 - Ⓑ No
11. How hard was this test compared to most other tests you have taken this year in school? VB595182
- Ⓐ Easier than other tests
 - Ⓑ About as hard as other tests
 - Ⓒ Harder than other tests
 - Ⓓ Much harder than other tests
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? VC034559
- Ⓐ 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
13. How important was it to you to do well on this test? VB595184
- Ⓐ Not very important
 - Ⓑ Somewhat important
 - Ⓒ Important
 - Ⓓ Very important



Science

Grade 12

This section has 23 questions. Mark your answers in your booklet. Fill in only **one** oval for each question except where instructed otherwise.

VC305768

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.

	Course not taken	I took this course in Grade 8	I took this course in Grade 9	I took this course in Grade 10	I took this course in Grade 11	I am taking or have taken this course in Grade 12	
a. Earth and space science	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305813
b. Life science (other than biology)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305814
c. Physical science (other than chemistry or physics)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305815
d. General science	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305817
e. First-year biology	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305819
f. Second-year biology	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305820
g. First-year chemistry	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305821
h. Second-year chemistry	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305822
i. First-year physics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305823
j. Second-year physics	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305825
k. Engineering and technology	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305826
l. Other science course	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	VC305829

GO ON TO THE NEXT PAGE 

ID110276

2. Are you currently enrolled in or have you taken International Baccalaureate® courses in science?

- A Yes
- B No

VC304768

3. Are you currently enrolled in or have you taken any online science courses for high school or college credit?

- A Yes
- B No

ID110275

4. Are you currently enrolled in or have you taken an Advanced Placement course in science? Fill in ovals for **all** that apply.

- A Yes, I am enrolled in or have taken Advanced Placement Biology.
- B Yes, I am enrolled in or have taken Advanced Placement Environmental Science.
- C Yes, I am enrolled in or have taken Advanced Placement Chemistry.
- D Yes, I am enrolled in or have taken Advanced Placement Physics B or C.
- E Yes, I am enrolled in or have taken Advanced Placement Computer Science A or AB.
- F No, I have never taken an Advanced Placement science course.



GO ON TO THE NEXT PAGE

VC305330

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

	Strongly disagree	Disagree	Agree	Strongly agree	
a. I do science-related activities that are not for schoolwork.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC305348
b. I like science.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC305350
c. Science is one of my favorite subjects.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC305351
d. I take science only because I have to.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VC305352
e. I need to do well in science to get the job I want.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VH142495
f. I would like a job that involves using science.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	VH142499

VC720597

6. Are you currently taking a science course?

- A Yes → Go to Question 7.
- B No → Skip to Question 18.

VF633079

7. In your science class this year, how often have you done hands-on activities or projects with any of the following? Fill in **one** oval on each line.

	Never	Rarely	Sometimes	Often	
a. Living things (for example, plants, animals, bacteria)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633080
b. Electricity (for example, circuits, batteries, and light bulbs)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633083
c. Chemicals (for example, mixing or dissolving sugar or salt in water)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633082
d. Rocks or minerals (for example, identifying types)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633087
e. Simple machines (for example, pulleys and levers)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633086
f. Magnifying glass or microscope (for looking at small things)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633084
g. Thermometer or barometer (for making measurements)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VF633085

VC305292

8. In your science class this year, how often do you do each 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. Read a science textbook, in class or at home	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC546510
b. Read a book or magazine about science topics	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF633095
c. Use the Internet to learn about science topics	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF633097
d. Watch a movie, video, or DVD about science topics	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF633099



VC304769

9. In your science class this year, how often do you do each 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. Discuss events in the news that are related to what you are learning in science class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304771
b. Work with other students on a science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304772
c. Present what you learned about science to your class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC304778
d. Take a science test or quiz	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720564



GO ON TO THE NEXT PAGE

VC720622

10. In your science class this year, how often do you do each 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. Identify questions that can be addressed through science experiments	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720623
b. Design a science experiment	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720634
c. Talk about measurements you took for your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720635
d. Talk about the results of your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720636
e. Watch your teacher do a science experiment or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720638
f. Make graphs or charts of the results from your science project or activity	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VC720639
g. Write about your science activities or projects (such as reports, science journals, or lab write-ups)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF633111



VH142438

11. In this school year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments for science?

- Ⓐ Never or hardly ever
- Ⓑ Once every few weeks
- Ⓒ About once a week
- Ⓓ Two or three times a week
- Ⓔ Every day or almost every day

VC546453

12. In this school year, how often have you talked with your teacher about how you are doing in science?

- Ⓐ Never or hardly ever
- Ⓑ Once every few weeks
- Ⓒ About once a week
- Ⓓ Two or three times a week
- Ⓔ Every day or almost every day

VH157884

13. In this school year, how often have you used your school library or media center resources for science (such as books, magazines, computers, and audio-video materials)?

- Ⓐ Never or hardly ever
- Ⓑ Once every few weeks
- Ⓒ About once a week
- Ⓓ Two or three times a week
- Ⓔ Every day or almost every day

VC546463

14. In this school year, how often have you used computers for science?

- Ⓐ Never or hardly ever
- Ⓑ Once every few weeks
- Ⓒ About once a week
- Ⓓ Two or three times a week
- Ⓔ Every day or almost every day

VC315291

15. How often do you feel you can understand what the teacher talks about in science class?

- Ⓐ Never or hardly ever
- Ⓑ Sometimes
- Ⓒ Often
- Ⓓ Always or almost always

VC315294

17. How often do you feel you can do a good job on your science assignments?

- Ⓐ Never or hardly ever
- Ⓑ Sometimes
- Ⓒ Often
- Ⓓ Always or almost always

VC315292

16. How often do you feel you can do a good job on your science tests?

- Ⓐ Never or hardly ever
- Ⓑ Sometimes
- Ⓒ Often
- Ⓓ Always or almost always

VF633128

18. In this school year, have you participated in any of the following activities? Fill in **one** oval on each line.

	Yes	No	
a. Science fair	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	VF633132
b. Science club	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	VF633134
c. Science competition	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	VF633135



19. In this school year, have you visited a museum, zoo, or aquarium to learn about science on a school trip? VF633304
- (A) Yes
- (B) No
20. In this school year, have you visited a museum, zoo, or aquarium to learn about science that was **not** on a school trip? VF633276
- (A) Yes
- (B) No
21. How hard was this test compared to most other tests you have taken this year in school? VB595182
- (A) Easier than other tests
- (B) About as hard as other tests
- (C) Harder than other tests
- (D) Much harder than other tests
22. 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? VC034559
- (A) Not as hard as on other tests
- (B) About as hard as on other tests
- (C) Harder than on other tests
- (D) Much harder than on other tests
23. How important was it to you to do well on this test? VB595184
- (A) Not very important
- (B) Somewhat important
- (C) Important
- (D) Very important



V. Enhanced NAEP Questions Tool

Introduction

After every assessment cycle, the National Center for Education Statistics (NCES) releases dozens of assessment questions 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 questions.

How do I access the NAEP Questions Tool?

The NQT is available online at <http://nces.ed.gov/nationsreportcard/nqt>. The tool can also be accessed by clicking the “Sample Questions” link on The Nation’s Report Card home page at <http://nationsreportcard.gov>.

What can I do with the enhanced NAEP Questions Tool?

NCES has developed an enhanced version of the NAEP Questions Tool (NQT) that expands on its current features to make the tool more useful than ever. You can now use the enhanced NQT to:

- Sort and select NAEP questions more easily with a new “drag ‘n drop” viewing option
- “Test yourself” on any NAEP subject with a more customizable quiz function
- Create online, self-scoring quizzes that students can login to take any time
- Compare results to how students performed across the nation

If you need help navigating the NQT, there is a Help button on every page. For more information on how to use the NQT, visit <http://nces.ed.gov/nationsreportcard/about/naeptools.asp#qrg>.

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

The NAEP website contains a wealth of information about the subjects NAEP assesses and can be accessed at <http://nces.ed.gov/nationsreportcard>.

How can I get additional help?

For more help with features on the NAEP website, click “Help” in the side panel.

For additional assistance, write to us via Contact Us at <http://nces.ed.gov/nationsreportcard/contactus.aspx>, 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 in each subject. For additional information on framework development, see the Governing Board's website at <http://www.nagb.org/publications/frameworks.htm>.

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.

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