

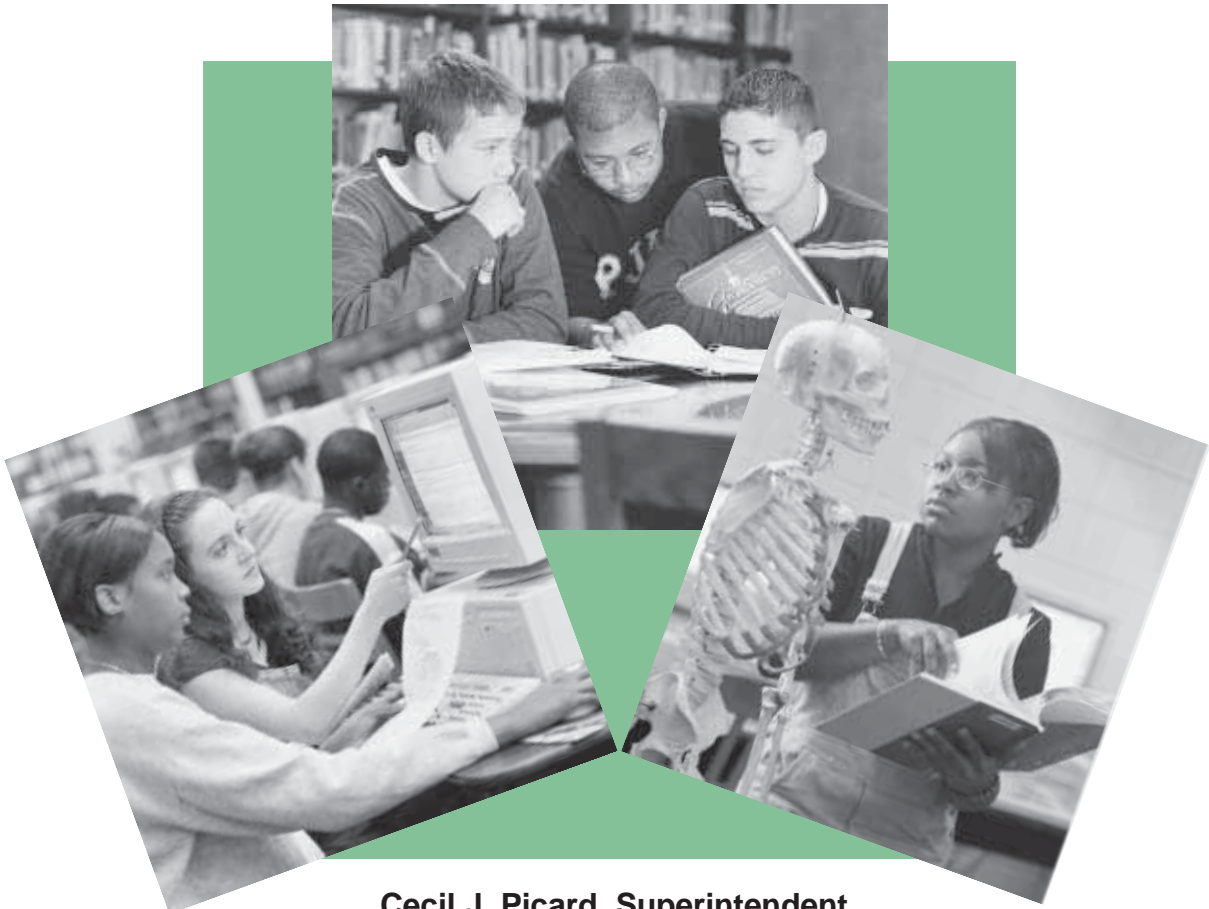


GEE 21

Graduation Exit Examination
for the 21st Century

GRADE 10

ENGLISH LANGUAGE ARTS MATHEMATICS



**Cecil J. Picard, Superintendent
Louisiana Department of Education**

January 2001

State Board of Elementary and Secondary Education

Mr. Paul Pastorek
President
Member-at-Large

Dr. James Stafford
Vice President
5th BESE District

Mr. Keith Johnson
Secretary-Treasurer
2nd BESE District

Ms. Donna Contois
1st BESE District

Ms. Glenny Lee Buquet
3rd BESE District

Mr. Walter Lee
4th BESE District

Dr. Richard Musemeche
6th BESE District

Mr. Dale Bayard
7th BESE District

Ms. Linda Johnson
8th BESE District

Mr. Gerald Dill
Member-at-Large

Ms. Leslie Jacobs
Member-at-Large

Ms. Weegie Peabody
Executive Director

This public document was published at a total cost of \$13,400.00. Sixty-two thousand copies were published in the first printing at a cost of \$13,400.00. The total cost of all printings of this document, including reprints is \$13,400.00. This document was published by Louisiana Department of Education, Office of Communications, and was printed by Moran Printing, Inc., 5425 Florida Boulevard, Baton Rouge, LA 70806, with funds provided by the LEARN Commission, to communicate with educators and other interested parties in the State of Louisiana about the state's new Accountability Program. This material was printed in accordance with the standards for printing by state agencies established pursuant to R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of the Louisiana Revised Statutes.

Introduction

- ◆ Louisiana is transforming public education with the *Reaching for Results* reform initiative.
- ◆ *Reaching for Results* includes higher standards for what students should know and be able to do, school and district accountability, increased resources for schools and students, and a new testing program, including the Graduation Exit Examination for the 21st Century (GEE 21).
- ◆ Students will take the GEE 21 as 10th and 11th graders.
- ◆ The goal of the GEE 21 is to ensure that students graduate from high school with some basic skills and knowledge in English, math, science and social studies. The GEE 21 assesses students' abilities according to the state's more rigorous standards for what students should know and be able to do.
- ◆ The GEE 21 replaces the old GEE, which has been in place since 1989. The GEE 21 differs from the old test. Instead of receiving "pass" or "fail" scores, students will receive an achievement level ranging from a top level of "Advanced" to a failing level of "Unsatisfactory." Students must score at the "Approaching Basic" level to pass the test. (See the chart on page 4.)
- ◆ Students who are in the 10th grade in spring 2001 (the senior class of 2003) must pass the English and Math tests to graduate. If they do not pass, they are allowed four opportunities to take a retest during their junior and senior years. These students continue to progress with their coursework while preparing for the GEE 21 retests.
- ◆ Future classes will have to pass the English, Math and either Science or Social Studies tests to graduate from high school.
- ◆ This booklet contains GEE 21 Math and English sample test questions. The questions are arranged from least difficult (Approaching Basic) to most difficult (Advanced). On the actual test, however, questions will not be organized by difficulty level.
- ◆ Louisiana's *Reaching for Results* program is working. The average student's ACT score has improved, and fewer students now have to take remedial math or English classes upon entering college. In addition, more students in the early grades are reading on grade level, and scores are up in both The Iowa Tests and LEAP 21 at every grade tested.
- ◆ For more information, call the Louisiana Department of Education's toll-free Helpline at **1-877-4-LEAP21 (1-877-453-2721)** or visit the Department's website at www.louisianaschools.net.



Table of Contents

GEE 21 Achievement Levels	4
Sample Math Test Items	5
Sample English Language Arts Test Items	11
High-Stakes Testing Questions & Answers	21
Test-Taking Tips	23
(inside back cover)	

GEE 21 Achievement Levels

GEE 21 has five different achievement levels.

Achievement Level	Definition	Estimated Percent of Points Needed*
Advanced	A student at this level has demonstrated superior performance beyond the proficient level of mastery.	about 85-100%
Proficient	A student at this level has demonstrated competency over challenging subject matter and is well prepared for the next level of schooling.	about 70-84%
Basic <i>Louisiana's 10-year goal</i>	A student at this level has demonstrated only the fundamental knowledge and skills needed for the next level of schooling.	about 45-69%
Approaching Basic <i>"Minimum" to pass the test</i>	A student at this level has only partially demonstrated the fundamental knowledge and skills needed for the next level of schooling.	about 35-44%
Unsatisfactory	A student at this level has not demonstrated the fundamental knowledge and skills needed for the next level of schooling.	about 34% and below

* The percentage of points needed for each level varies, depending on the test (English or Math). These percentages are based on the Spring 2000 GEE 21 field test results.

Take the Test

Listed below are sample questions from each GEE 21 achievement level. The questions are arranged from least difficult to most difficult. On the actual test, questions will not be organized by difficulty level.

NOTE: Students are provided a Mathematics Reference Sheet to use during testing. This sheet provides a ruler, protractor, formulas, and other information. Calculators are not allowed unless noted.

Grade 10 Mathematics

1. The three running backs on the Thunderbolts football team ran for the following yardage in the last game:

Thibeaux: -3, 5, 10, -5, -2, 1, 13
Walker: 4, 3, -1, 2, -1, 4, 5
Smith: -2, 5, -5, 4, 22, 1, -3

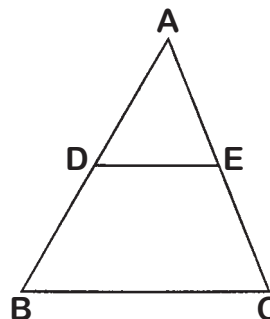
Which running back had the **most** yards gained?

- A. Thibeaux
- B. Walker
- C. Smith
- D. No player had more yards gained than either of the others.

This item requires students to add signed numbers and find the largest sum.

Basic - Students use algebraic and geometric reasoning strategies to solve problems.

Use the figure to answer Question 2.



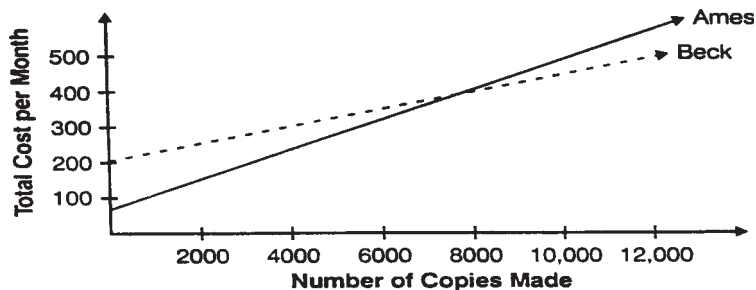
2. In this figure, D and E are midpoints of the sides of triangle ABC. The perimeter of triangle ADE is 18 centimeters. What is the perimeter of triangle ABC?

- A. 27 centimeters
- B. 36 centimeters
- C. 54 centimeters
- D. 72 centimeters

This item requires students to recognize that triangle ADE is similar to triangle ABC and use proportional reasoning to find the perimeter of triangle ABC.

Proficient - Students understand and use linear functions to solve real-world problems.

Use the figure below to answer Question 3.



3. This graph was made to compare the costs of renting copy machines from Ames Business Products and from Beck's Office Supply. What information is given by the point of intersection of the two lines?
- the number of copies for which the fixed per-month charge is equal to the cost of copies
 - the price per copy for renting a copier from both companies
 - the fixed per-month charge for renting a copier from both companies
 - the number of copies for which the total cost is the same for both companies

This item requires students to make an inference from a graph.

Advanced - Students apply their knowledge of statistics to analyze data and solve complex real-world problems.

Use the information and table below to answer Question 4.

4. Auto manufacturers are under pressure from the federal government to increase the gas mileage (miles per gallon) achieved by their cars and trucks. The Environmental Protection Agency (EPA) tests each model for mileage.

For ten different models offered by one manufacturer, the EPA mileages are as follows:

Model	A	B	C	D	E	F	G	H	I	J
EPA Mileage	13	18	21	25	28	28	30	32	36	39

In the next model year, the EPA mileage for Model F will increase to 30, and Model J will be replaced by a new model with an EPA mileage of 37. What statistic will **not** be affected by these changes?

- the mean
- the median
- the mode
- the range

This item requires students to understand how a change in the data will affect each statistic. Students would be allowed to use a calculator for this item.

The work presented here and on the following three pages contains examples of student work, along with the number of points each response received (from 1 point to 4 points). Students are expected to correctly answer the question and to clearly communicate his or her in-depth understanding of the content area.

**Grade 10
Mathematics
Constructed Response**

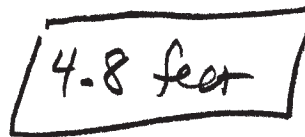
Approaching Basic

Score: 1 point

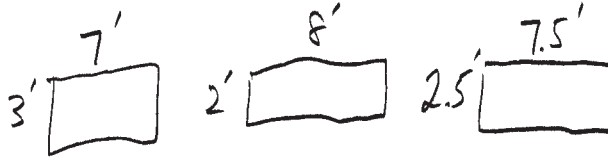
A school banner is 6 feet wide by 4 feet high.

- a. If the banner were 5 feet wide, how high would it have to be in order to have the same area as the first banner?

24



- b. Give three more examples of rectangular banners that would have areas the same as the first banner but with dimensions different from both the first banner and the banner in part a. Make the width greater than the height in each example.



- c. Suppose that the length of a rectangle with an area of 24 square units is unknown. Let x represent the length. Write an expression for the width in terms of x . Use this expression to write a formula for the **perimeter**, p , in terms of the unknown value, x .

This response is typical of a student who scores at the *Approaching Basic* level. This student was able to find the correct height of the banner in Part a, but found banners with the same perimeter (instead of area) in Part b. This student left Part c blank.

Basic

Score: 2 points

A school banner is 6 feet wide by 4 feet high.

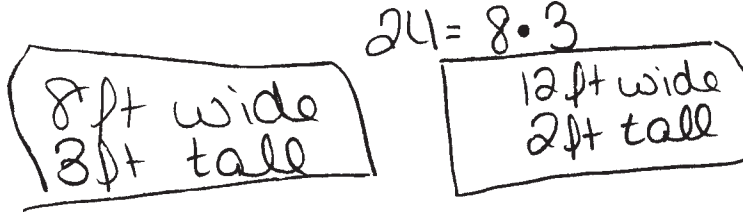
- a. If the banner were 5 feet wide, how high would it have to be in order to have the same area as the first banner?

$$A = 6 \cdot 4$$
$$24$$

$$24 = 5 \cdot h$$
$$\frac{24}{5} = \frac{5 \cdot h}{5}$$
$$4.8 = h$$



- b. Give three more examples of rectangular banners that would have areas the same as the first banner but with dimensions different from both the first banner and the banner in part a. Make the width greater than the height in each example.



- c. Suppose that the length of a rectangle with an area of 24 square units is unknown. Let x represent the length. Write an expression for the width in terms of x . Use this expression to write a formula for the **perimeter**, p , in terms of the unknown value, x .


This response is typical of a student who scores at the *Basic* level. This student received full credit for finding the height of the banner in Part a but only partial credit for Part b because only two examples were given. This student left Part c blank.

Proficient


Score: 3 points

A school banner is 6 feet wide by 4 feet high.

- a. If the banner were 5 feet wide, how high would it have to be in order to have the same area as the first banner?







$A = 6 \cdot 4$
 $A = 24 \text{ ft.}$



$24 = 5 \cdot x$
 $\frac{24}{5} = x$
 $4.8 \text{ ft} = x$

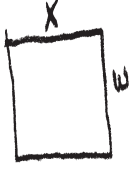
It would have to be 4.8 feet high to have the same area as the other banner.

- b. Give three more examples of rectangular banners that would have areas the same as the first banner but with dimensions different from both the first banner and the banner in part a. Make the width greater than the height in each example.

<p>1.  width = 7 ft, height = x</p> <p>$24 = 7 \cdot x$ $3.43 \text{ ft} = x$</p> <p style="border: 1px solid black; border-radius: 15px; padding: 2px;">width = 7 ft, height = 3.43 ft</p>	<p>2.  width = 8, height = x</p> <p>$24 = 8 \cdot x$ $3 \text{ ft} = x$</p> <p style="border: 1px solid black; border-radius: 15px; padding: 2px;">width = 8 ft, height = 3 ft</p>	<p>3.  width = 9, height = x</p> <p>$24 = 9 \cdot x$ $2.67 = x$</p> <p style="border: 1px solid black; border-radius: 15px; padding: 2px;">width = 9 ft, height = 2.67 ft</p>	<p>4.  width = 10, height = x</p> <p>$24 = 10 \cdot x$ $2.4 = x$</p> <p style="border: 1px solid black; border-radius: 15px; padding: 2px;">width = 10 ft, height = 2.4 ft</p>
---	--	--	--

- c. Suppose that the length of a rectangle with an area of 24 square units is unknown. Let x represent the length. Write an expression for the width in terms of x . Use this expression to write a formula for the **perimeter**, p , in terms of the unknown value, x .

$p = 24$



$(p = x + x + w + w)$

perimeter

width ($2w = p - 2x$)

This response is typical of a student who scores at the *Proficient* level. This student received credit for correctly answering Parts a and b, but only partial credit for Part c because the formula for perimeter is not in terms of x (it is in terms of x and w).

Advanced

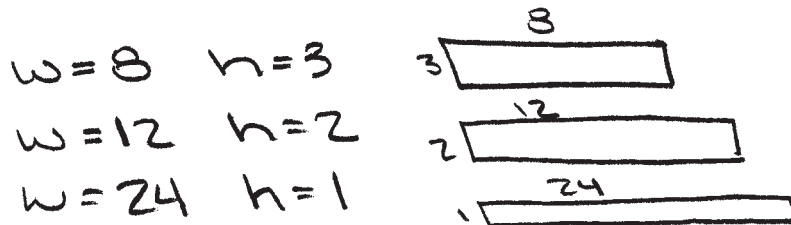
Score: 4 points (full credit)

A school banner is 6 feet wide by 4 feet high.

- a. If the banner were 5 feet wide, how high would it have to be in order to have the same area as the first banner?



- b. Give three more examples of rectangular banners that would have areas the same as the first banner but with dimensions different from both the first banner and the banner in part a. Make the width greater than the height in each example.



- c. Suppose that the length of a rectangle with an area of 24 square units is unknown. Let x represent the length. Write an expression for the width in terms of x . Use this expression to write a formula for the **perimeter**, p , in terms of the unknown value, x .

$$w = \frac{24}{x}$$

$$p = 2x + \left(2 \cdot \frac{24}{x}\right)$$

This response is typical of a student who scores at the *Advanced* level. This student correctly found the height of the banner in Part a, found three banners with different dimensions but the same area in Part b, and found a formula for the perimeter in terms of x in Part c. The student received full credit for all three parts of the question.

Marie wrote this letter to apply for a job. She has asked you to help revise and edit it. Read the letter of application carefully, and choose the best way to revise each underlined part of the letter. If the part is correct the way it is written, choose answer D, “no error.”

Job Letter

15 Cyprus St.
Baton Rouge, LA 70804
May 15, 2000

Ms. Elizabeth Bradshaw
Recreation and Parks Director
11 Court Street
Baton Rouge, LA 70804

Dear Ms. Bradshaw:

I am writing to apply for the position of Youth Counselor in the town’s summer recreation program, specifically the basketball program. I want to have this job because I enjoy watching aspiring young basketball players realize their potential as they progress through the summer. In addition, I have wanted to be a basketball coach my entire life.

Because I have had experience working with children and playing basketball, I feel that I am well-qualified for a position on the summer recreation staff. I have played basketball since I was eight, have attended summer hoop camp for five years, and am currently on the high school varsity squad. For the past two winters, I have also coached a team of third graders in the Pee Wee basketball division.

* I am in good physical condition, I exercise every day. I am friendly and deal well with people. I love seeing childrens’ eyes³ light up as they learn the fun that goes along with the game of basketball. You won’t⁴ hardly find anyone more interested and qualified.

* You may contact the¹ following people for a personal reference: Ms. Kathleen Allen, for whom I babysit, and Mr. Ron McCurry, my basketball coach at my High School.

Please let me know if you would like any more information about² my experience or my qualifications.

Thank you for your consideration.

Sincerely,

Marie Moore

* **On the test, these items are numbered consecutively.**

Grade 10
English Language Arts
Multiple Choice

Approaching Basic - Students demonstrate limited knowledge of basic rules of language such as spelling, punctuation, capitalization, and usage.

1. You won't hardly find anyone more interested and qualified.
 - A. You will not
 - B. You hardly won't
 - C. You will not never
 - D. no error

2. For a personnel reference, you may contact Mr. Ron McCurry, my basketball coach at my High School.
 - A. at my high school.
 - B. at his High School.
 - C. in my High School
 - D. no error

Basic - Students demonstrate consistent use of the rules of language such as recognizing correct sentence formation.

3. I am in good physical condition, I exercise every day.
 - A. condition I
 - B. condition we
 - C. condition; I
 - D. no error

Proficient - Students know the sophisticated rules of language such as use of the apostrophe to show possession.

4. I love seeing childrens' eyes light up as they learn the fun that goes along with the game of basketball.
 - A. children's eyes
 - B. child's eyes
 - C. childrens eyes
 - D. no error

(Correct answers: 1. A; 2. A; 3. C; 4.A)

Below are excerpts from students' responses at each achievement level from the Spring 2000 GEE 21 test.

Grade 4 English Language Arts Writing Samples

Read the topic below, and write a well-organized, multi-paragraph composition of at least 250-300 words.

Writing Topic

The Louisiana Department of Education is giving an "Outstanding Teacher" award. In order to select the most deserving teacher, the Department wants to hear from students across the state. Write a letter nominating a teacher you know and convincing the Department of Education to give the award to that teacher.

Before you begin to write, think about a teacher who should be the "Outstanding Teacher." What does this teacher do that makes him or her the best person to receive this award? **Why** do you think the way you do?

Now write a letter to the Louisiana Department of Education stating your position on who should receive the "Outstanding Teacher" award. Express your position clearly so that the Department of Education will know exactly what you think. Be sure to include specific reasons for selecting the teacher you have nominated, and support those reasons with clear examples and evidence. **Persuade** the Department to give the award to the teacher you nominated.

The **Unsatisfactory** response

- ◆ addresses the topic but offers random writing that lacks organization and development and
- ◆ contains many errors in spelling, mechanics, and usage.

April-5-2000

Louisiana Department of Education

Baton Rouge, Louisiana

Dear Louisiana Department of Education

I'm writing you this letter to let you know about my Geometry teacher Mr. Mr. is a very good teacher and he always make sure every one is on task. We sometimes do class talks about problems in our school today. Our class consists of about thirty or fours students. This spite all of those students we have Mr. manage to get the job done. I sometimes wonder how it would be if I was in his shoes. We may never get another teacher like Mr. again. But we will always remember what he put in our heads.

Sincerely

The Approaching Basic response

- ◆ has a clear focus and organization, but fails to develop each point with supporting details,
- ◆ uses very simple sentence structure and vocabulary, and
- ◆ contains errors in all the conventions (sentence formation, mechanics, usage, and spelling).

Louisiana Department of Education,

I am nominating Mrs. because she is a good teacher because she prepares us for the future, and because she does not except nothing but our best.

First she is a good teacher. For example, she has patience, she is understanding, and she has years of experience.

second, she is preparing us for the future. Indeed she makes us take on responsibility, prepares us for college, and prepares us for problems we could face in the future.

Finally and most important, she does not except anything but our best. She makes sure we understand everything, cover every thing, and she pushes us to do our best.

Yaris Truely,

The Basic response

- ◆ has a beginning and ending and some specific details, but is limited in development,
- ◆ uses simple sentence structure and vocabulary,
- ◆ projects a voice or personality, and
- ◆ contains some errors in sentence formation, mechanics, and spelling.

Dear Louisiana Dept. of Education,

The teacher I think is the most outstanding teacher is coach

He is the best teacher I have had. I learned and had fun in his class. Coach could be serious when we had to do our work and funny at other times. I think anybody who has had him for a teacher really liked him. The class he taught me was world geo. which was boring but he could make anything intrusting and fun to learn. He was also a good person as well as teacher. I really miss being in his class. I wish other teachers could be more like him.

The Proficient response

- ◆ has a clear focus, but lacks tight organization and development,
- ◆ projects a distinct voice,
- ◆ has some variety in sentence structure, and
- ◆ demonstrates overall control of the conventions of writing (i.e., sentence formation, mechanics, usage, and spelling).

Mrs. _____ is a great teacher that is very intelligent and determined to help her students learn. She is always ready to teach new things and learn a few herself. Her intelligence is incredible. She is very determined to make sure students leave her class knowing more than they did when they had entered. Mrs. _____ deserves the "Outstanding Teacher" award because of all the effort she puts into her career and the knowledge she gives society.

Mrs. _____ always has something creative planned for her classes. She starts out teaching the basics and then slowly moves on to the more difficult exercises. Time is usually given for questions to be answered. Help is always provided. Also group activities are often assigned, giving students a chance to work together. Great is only one word describing Mrs. _____.

"You are not finished when you are defeated, you are finished when you quit," Mrs. _____ believed in that statement. She will not allow her students to quit no matter what the cause. Her determination could be as great as her knowledge. Students leave her class knowing more than they did when they had entered. Mrs. _____ feels much joy in teaching people who will someday run the country.

The **Advanced** response

- ◆ is well organized and thoroughly developed with specific details,
- ◆ projects a distinct voice,
- ◆ uses a variety of sentence structures and vocabulary, and
- ◆ demonstrates consistent control of the conventions of writing (sentence formation, mechanics, usage, and spelling).

Dear department of education, _____
my name is _____ and I understand
that you are giving an "outstanding teacher"
award and I have an amazing nominee I'd like to
share with you. Mrs. _____ was my fourth
grade English and social studies teacher at
_____ middle school. She was a teacher I'll never forget!
Mrs. _____ had outstanding qualities making
her classroom an enjoyable place to be. She made
learning fun, prepared students for the future, and
always cared for her students.

In Mrs. _____ class we did not sit
quietly working on worksheets all day, instead we
did projects on anything from famous people of the past
to famous places of the present. These projects consisted
of writing in-depth reports along with a presentation
to the class with visual aids. This helped our writing
skills and public speaking skills as well. One project
that stands out the most in my mind was the
biographies we wrote and later presented. However, we did
not only present our person, we became them by
dressing as they would have, and telling their stories
as if it had happened to us. All this was being taped
by a video camera for the class to enjoy later. At the
end of this, I not only had a better understanding of mine
and everyone else's reports, but had fun doing it!

Mrs. _____ class was not only a lot of fun, but
it also prepared me well for classes later to come. While some
fourth graders were learning paragraph formation, we were
learning to write reports containing brainstorming webs, which
taught me how to organize my ideas, and outlines, which showed
me where to put my ideas. In addition, we learned how to
write introductions, body paragraphs, and conclusions. At the end
we were also required to write a bibliography, which I had never
heard of until then. These are just a few examples of the
important knowledge I obtained from her class.

Questions and Answers

Louisiana “High’Stakes” Testing *The Facts*

Q *What is the GEE 21 and who takes it?*

A The GEE 21 is the state test for 10th and 11th grade students. This test is aligned with the Louisiana Content Standards and measures students’ knowledge and skills in English, math, science, and social studies.

The GEE 21 is divided into four tests:

- ◆ In spring 2001, 10th-grade students (the senior class of 2003) must take the English and Math tests and pass these tests to graduate. They will have four opportunities to retake the test during their junior and senior years.
- ◆ In 11th grade, these students will take the Science and Social Studies tests. Passage of these sections is not required for their graduation, although future students will have to pass at least one of these subjects.

Q *How does the new GEE 21 differ from the old Graduation Exit Examination?*

A On the old exam, students received “pass” or “fail” grades. On the new exam, students can score at levels ranging from a top level of “Advanced” to a failing level of “Unsatisfactory.” Students must score at the “Approaching Basic” level or above to pass the test.

Q *What happens to students who fail the test?*

A Students who fail are offered at least four opportunities to pass the English and Math tests (two opportunities their junior year and two their senior year). These students also can take advantage of state-funded remediation to help them pass the retests.

Q *Do students who fail parts of the exam have to retake the whole exam?*

A No. Students have to retake only the part of the test they did not pass. For students who are sophomores in spring 2001 (the graduating class of 2003), only GEE 21 Math and English tests count toward graduation, so those students would only have to retake Math and/or English. They would not have to retake Science and Social Studies. Future classes (graduating classes of 2004 and beyond) will have to retake Math, English and either Science or Social Studies, because they will have to pass the English, Math, and either Science or Social Studies tests to graduate.

Questions and Answers, continued

Q *Is passing the GEE 21 test the only requirement for graduation?*

A No. Students also must pass a certain number of courses. High school students must complete a minimum of 23 Carnegie units of credits to graduate from high school.

Q *What kind of calculators are needed for the GEE 21 math test?*

A Calculators are not required for GEE 21, but their use is strongly recommended. Students should use the calculator with which they are most familiar. Scientific or graphing calculators are recommended. Students who use a graphing calculator on GEE 21 have no advantage over students who use a scientific calculator.

Q *How can I help prepare for the new GEE 21?*

A Talk with your English and math teacher or the school's guidance counselor.

For more information, call the Louisiana Department of Education's Helpline, toll free, at **1-877-4-LEAP21 (1-877-453-2721)** or visit the Department's website at **www.louisianaschools.net**.

Test-taking Tips

1. You do not have to answer all the questions correctly to pass. It is not expected that students answer every question correctly.
2. Attempt to answer all of the questions and do not leave any blanks. There is no penalty for guessing, and students can get partial credit on the open-ended items.
3. Use time wisely. If you get stuck on a question, make the best guess or place a mark in the test booklet by that item and go back to it after finishing that section of the test.
4. Get a good night's sleep and a good breakfast before taking the test.
5. Try to make the morning of the test a pleasant one. Avoid stress.
6. Get to school on time the day of the test.
7. Listen carefully to the instructions from the teacher, and read the directions to each question carefully.
8. Stay focused on the test, even if other students finish early.
9. It is OK to mark in the test booklet as a help in taking the test -- i.e., underlining important words, etc. -- but mark all answers on the answer sheet.

Louisiana Department of Education
Office of Communications and Legislative Services
P.O. Box 94064
Baton Rouge, LA 70804