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ABSTRACT

Three guides provide sample problems like the ones students would solve on the Colorado Student Assessment Program tests. For each question, the pertinent Colorado state standard is identified. The ninth grade guide contains questions in reading, writing and mathematics; the guide to the 10th grade examination also contains questions related to reading, writing, and mathematics. The guide for 11th grade contains sample problems like the ones a student would solve in the ACT Assessment in the areas of English, mathematics, reading, and science. (SLD)

What Your 9th, 10th, and 11th Grader Should Know About Reading, Writing, and Math

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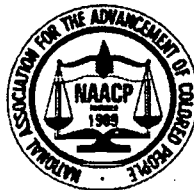
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What Your 9th Grader Should Know About Reading, Writing, and Math

The Colorado Student Assessment Program, or CSAP, evaluates how well schools and students meet Colorado standards for proficiency in reading, writing, and mathematics. This guide provides a few example problems like the ones your child will solve in the ninth grade CSAP exams, noting the standard (by number) the questions are designed to assess.* If you are familiar with the types of questions on the CSAP and how they relate to the standards, you'll be better able to help your 9th-grader prepare for the exam.

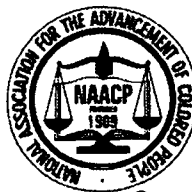
Please set aside some time to read and go over these questions with your child. That way you can get an idea of the skills your child has mastered and those that still need work.

But remember, the CSAP program isn't just about doing well on a test. It's about making sure that all students get the reasoning and communication skills and the broad knowledge they will need to succeed as they progress through each grade level, through college or career training — and throughout life.

9th Grade

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Reading and Writing

(The following example assesses Reading and Writing Standards 1, 4, and 5)

This summer James plans to attend two weeks of pre-season football training at his school. He can get a ride home, but he will have to take the bus to school. James lives at 3257 York Street. The bus stops at the school, which is near the intersection of Martin Luther King Boulevard and Monaco Street. Look at James's practice schedule, the bus schedule, and the fare schedule below, then answer the questions that follow:

| | |
|--------------------------|-----------------------|
| Practice Schedule | |
| Monday - Wednesday | 8:45 a.m. - 2:45 p.m. |
| Thursday - Friday | 9:30 a.m. - 4:00 p.m. |

| | | | | |
|--------------------------------|------|------|--------|------|
| ROUTE 43: | | | | |
| Martin Luther King Blvd | | | | |
| Eastbound - Weekday | | | | |
| LVE | 31ST | MLK | MLK | ARR |
| DOWN | YORK | COLO | MONACO | STAP |
| 801A | 804 | 807 | 812 | 816 |
| 816 | 819 | 822 | 827 | 831 |
| 901 | 904 | 907 | 912 | 916 |
| 931 | 934 | 937 | 942 | 946 |
| 946 | 949 | 952 | 957 | 1001 |
| 1001 | 1004 | 1007 | 1012 | 1016 |
| 1046 | 1049 | 1052 | 1057 | 1101 |
| 1101 | 1104 | 1107 | 1112 | 1116 |
| 1116 | 1119 | 1122 | 1127 | 1131 |
| 1131 | 1134 | 1137 | 1142 | 1146 |

| Bus Fares | Peak 6-9 a.m., 4-6 p.m. | Off-Peak |
|---|-------------------------------|----------|
| Local Bus & Light Rail | | |
| Cash | \$1.25 | \$0.75 |
| Student Cash | \$1.25 | \$0.75 |
| Senior (65+)/Disabled/Medicare Cash | \$1.25 | \$0.25 |
| Discounted Fares - Advance Purchase Required | | |
| 10-Ride Ticketbook | \$9.50 | \$5.75 |
| Regular Monthly Pass | \$35.00 | \$21.00 |
| Student Monthly Pass | \$21.00 | \$12.50 |
| Senior/Disabled Monthly Pass | \$21.00 | \$12.50 |

1. What bus stop is closest to James's house?
2. What time should James be at the bus stop in order to arrive at the school in time for practice on Wednesdays?
3. What is the latest bus James can take on Fridays to arrive on time for practice?
4. What fare will James pay on Mondays?
5. What fare will James pay on Thursdays?
6. Should James buy a 10-Ride Ticketbook? Why or why not?

(Questions 7 through 11 assess Reading and Writing Standard 3)

7. A classmate just finished writing the following draft and asked you to edit it, but she wants you to respond *only* to the underlined sections. As you edit her paper, make no change above those underlined sections that are correct. If there is a mistake, write the correction in the space above it. Ignore errors that are not underlined.

I look through my (a) closet at home I see a jet ski made of (b) Lego's. I think to myself, "They (c) could really represent my (d) life and how I like to do things. (e) Their are two main reasons I believe I am like those Lego's. (f) First, I still enjoy playing with them (g) every once in a while which represents how I would like to stay like a child. Second, I believe I am like the Lego's because I look at myself and (h) say "It takes time for all the pieces to come together." I apply that to myself because one can't change (i) overnight, it takes time to become better.

8. Choose the sentence that is written correctly.

- ___a. The lives and experiences of rock musicians sounds exciting.
- ___b. It is important to remember that neither fame nor money make for happiness.
- ___c. Herds of buffalo was wiped out by the turn of the century.
- ___d. Certainly everyone has heard of Ricky Martin.

9. Choose the sentence that is written correctly.

- ___a. A lot of students debate about whether or not they should work while going to school.
- ___b. I would of completed the task if there had been more time.
- ___c. Everyone who has tried to write an essay knows that they will have to rewrite and rewrite.
- ___d. I wondered what kind of a life he had led; but I didn't want to ask him.

10. Choose the sentence that is written correctly.

- ___a. I made one promise to my family: to become the first person to graduate from college.
- ___b. I made one promise to my family; to become the first person to graduate from college.
- ___c. I made one promise to my family, to become the first person to graduate from college.
- ___d. I made one promise to my family. To become the first person to graduate from college.

11. Choose the sentence that is written correctly.

- ___a. I am eager for the summer to start. I want to sleep in, and stay up late.
- ___b. I am eager for the summer to start; I want to sleep in and stay up late.
- ___c. I am eager for the summer to start; I want to sleep in; and stay up late.
- ___d. I am eager for the summer to start, I want to sleep in and stay up late.

(The following writing task assesses Reading and Writing Standards 2 and 3)

Write a convincing paper in which you agree or disagree with this statement: "Students younger than 16 should be permitted to hold jobs."

(The following task assesses Reading and Writing Standard 6)

Read these selected passages from the poem, "On the Pulse of the Morning," by Maya Angelou, then answer the questions that follow.

On the Pulse of the Morning
Maya Angelou

1
A Rock, A River, A Tree
Hosts to species long since
departed,
Marked the mastodon,
The dinosaur, who left dried
tokens
Of their sojourn here
On our planet floor,
Any broad alarm of their
hastening doom
Is lost in the gloom of dust
and ages.

2
But today, the Rock cries out
to us, clearly, forcefully,
Come, you may stand upon
my

Back and face your distant
destiny,
But seek no haven in my
shadow.
I will give you no hiding place
down here.
3
You, created only a little lower
than
The angels, have crouched
too long in
The bruising darkness
Have lain too long
Face down in ignorance...

9
...Here, root yourselves
beside me.

I am that Tree planted by the
River,
Which will not be moved.
I, the Rock, I the River, I the
Tree
I am yours -- your passages
have been paid.
Lift up your faces, you have a
piercing need
For this bright morning
dawning for you.
History, despite its wrenching
pain
Cannot be un-lived, but if faced
With courage, need not be
lived again.

10
Lift up your eyes upon

This day breaking for you.
Give birth again
To the dream.

13
Here, on the pulse of this new
day
You may have the grace to
look up and out
And into your sister's eyes,
and into
Your brother's face, your
country
And say simply
Very simply
With hope --
Good morning.

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12. What is the theme of the poem? Give an example from the poem that supports your answer.
13. What is the message of stanza 2?
14. In this poem, to whom do the words "you" and "your" refer?
15. What does the Rock represent? Explain your answer.
16. "The Rock cries out..."

In the above line, the Rock is an example of:

- ___ a. simile
- ___ b. personification
- ___ c. alliteration
- ___ d. onomatopoeia

17. What does the author mean by the word "pulse"?

Mathematics

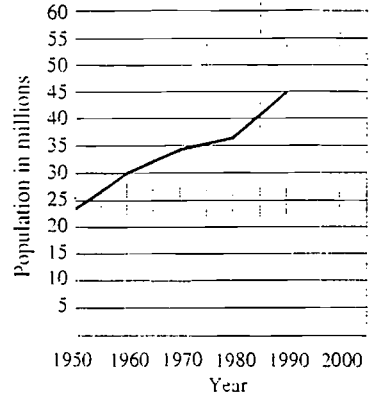
1. $4 \times \square = \square$ and $\square \times 3 = \square$ (Mathematics Standard 1)

Circle the number that, if placed in each box above, would make both equations true.

0 1 2 3 4

2. Based on the graph below, if the population increases by the same rate from 1990 to 2000 as it increased from 1980 to 1990, approximately what would be the expected population by 2000? (Mathematics Standard 2)

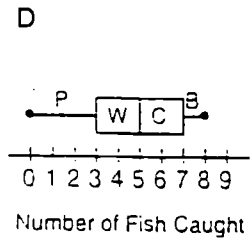
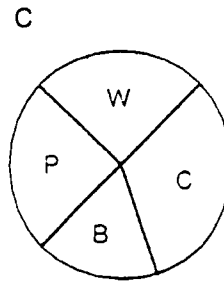
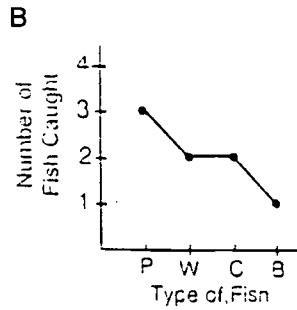
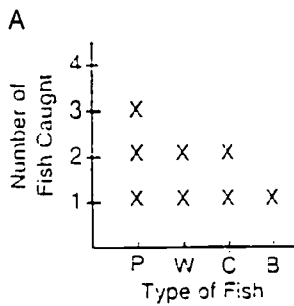
- A. 47 million
- B. 50 million
- C. 53 million
- D. 58 million



3. Two people caught 8 fish on a fishing trip: (Mathematics Standard 3)

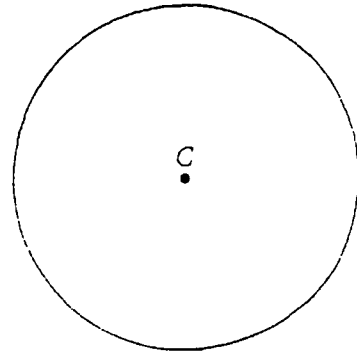
| Type of Fish | Number Caught |
|--------------|---------------|
| Perch (P) | 3 |
| Walleye (W) | 2 |
| Catfish (C) | 2 |
| Bass (B) | 1 |

Which graph below **best** represents the results shown in the table?



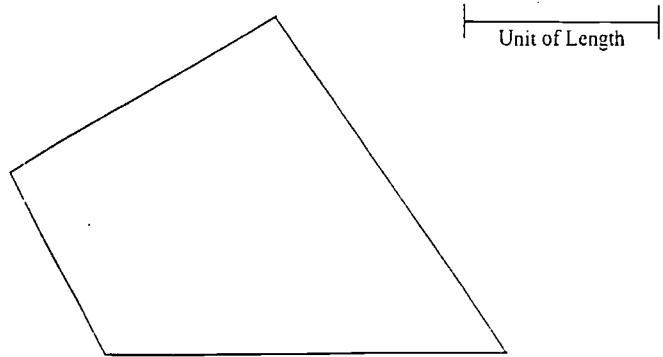
- ___ A.
- ___ B.
- ___ C.
- ___ D.

4. Using the centimeter ruler provided, find, to the nearest centimeter, the circumference of the circle below with center *C*. (*Mathematics Standard 4*)



Answer: _____ cm

5. Use the unit of length below to estimate the perimeter of the figure below. Between what two whole-number units does the perimeter lie? (*Mathematics Standard 5*)



Answer: Between _____ and _____

6. The following advertisements appeared in a newspaper: (*Mathematics Standard 6*)

| |
|--|
| <p>Building A Office Space Available 85 - 95 square meters \$475 per month 100 - 120 square meters \$800 per month</p> |
|--|

| |
|--|
| <p>Building B Office Space Available 35 - 260 square meters \$90 per square meter per year</p> |
|--|

If a company wants to rent an office of 110 square meters for a year, in which office building will they get the lower price? Show your work.

Answers

Reading

1. 31st & York
2. 8:19
3. 9:04
4. \$1.25
5. \$0.75
6. Yes, he will save \$1
7. a home. I
b Legos
c really
d things I like to do
e There
f First, I
g while,
h say,
I overnight. It
8. d
9. a
10. a
11. b
12. see below
13. see below
14. humanity*
15. history**
16. b
17. new beginning***

*or another word or phrase expressing this concept, such as *mankind, humans, people, all of us*, etc.

**or another word or phrase expressing this concept, such as *time, the past, experience*, etc.

***or another word or phrase expressing this concept, such as *dawn, hope, future, life, renewal, rebirth*, etc.

12. Statement expressing the concept that there is hope for humanity if we understand and learn from all that has gone before. Examples include: "you may stand upon my back and face your distant destiny," "history, despite its wrenching pain, cannot be unlived but if faced with courage, need not be lived again."
13. Statement expressing the concept that humanity must honestly acknowledge its past errors in order to build a better future.

Writing

See student writing and evaluation on page 7.

Math

1. 0 (zero)
2. C
3. A
4. 14 cm
diameter = 4.6 cm
circumference = πd
circumference = 3×4.6 cm
circumference = 13.8 cm
circumference = 14 cm
5. 8 and 9
6. Building A
Building A: \$800 per month \times 12 months = \$9600 per year.
Building B \$90 per square meter per year \times 110 square meters \$9900 per year.
The company will save \$300 per year by renting an office in Building A.

Writing

This is an example of a high-scoring 9th grade essay.

"Work at 14"

Are you fourteen and looking for an after-school job? If so, you probably know that you can't get one. Sure, you can get a permit when you're fourteen, but what good is that if you can't get a job until you're sixteen. Permit and job ages are conflicting and its proposed itself as a problem to most fourteen year-olds. Something needs to be changed.

Laws today put too many restrictions on fourteen year old employees. The laws state that a fourteen or fifteen year old can only work a couple of hours a day. That is, if you can find a job. These unfair laws also limit the jobs these young adults can do.

Also, if you are lucky enough to find a job, the salaries are very low. When paychecks are passed out its hardly worth the time and effort

you've put into it. Of course there is always the paper route, berry fields, or babysitting. However, if you look at it, these jobs are harder work than most other jobs and they pay alot less.

I also believe that if the government was to give fourteen year olds more jobs, it would keep lots of them off the streets after school and on weekends. Which, in turn, would quite possibly lower the drug use and crime rate in most of the cities here in Oregon. Changing the law would allow more kids to go to college. With a job they could save for college and not leave it to parents or have to wait and try to pay their way through. Not to mention there would be more taxes coming out of more paychecks, which would mean better communities.

However, I can see the government and business owners point of views. There would be a great fear of young workers not being able to hold a job or a fear of them quitting frequently. Of course there are going to be a few, but I think for the most part fourteen and fifteen year old adolescence would be eagerly inclined to do a good job.

The working laws need some serious help. They need to be changed. They need to give fourteen and fifteen year olds the option to be employed on a regular work schedule with regular wages. I feel we are not only willing but competent enough, by far, to perform most of the work tasks of everyday jobs. Something, somewhere, somehow needs to be changed.

Source: Northwest Regional Educational Laboratory

Rating:

(Scale: 4 high, 1 low) Ideas: 4 Organization: 4 Voice: 4 Word Choice: 4+ Conventions: 3

Credits:

Math questions 2 and 6 reproduced from TIMMS Population 3 Item Pool. © 1995 by IEA, The Hague.

Math question 3 released by the Michigan Department of Education.

Math question 4 NAEP released Mathematics Item, 1996

Math question 5 *Student Work & Teacher Practices in Mathematics*. National Center for Education Statistics, Office of Educational Research and Improvement, U. S. Department of Education, 1999.

What Your 10th Grader Should Know About Reading, Writing, and Math

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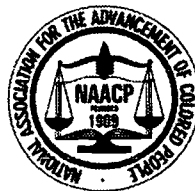
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10th Grade

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Reading and Writing

Reading (Questions 1 through 7 relating to the following story assess Reading and Writing Standards 1, 4, 5, and 6)

Read the story below and answer the questions that follow.

The Story of an Hour

by Kate Chopin

Knowing that Mrs. Mallard was afflicted with a heart trouble, great care was taken to break to her as gently as possible the news of her husband's death.

It was her sister Josephine who told her, in broken sentences; veiled hints that revealed in half concealing. Her husband's friend Richards was there, too, near her. It was he who had been in the newspaper office when intelligence of the railroad disaster was received, with Brently Mallard's name leading the list of "killed." He had only taken the time to assure himself of its truth by a second telegram, and had hastened to forestall any less careful, less tender friend in bearing the sad message.

She did not hear the story as many women have heard the same, with a paralyzed inability to accept its significance. She wept at once, with sudden, wild abandonment, in her sister's arms. When the storm of grief had spent itself she went to her room alone. She would have no one follow her.

There stood, facing the open window, a comfortable, roomy armchair. Into this she sank, pressed down by a physical exhaustion that haunted her body and seemed to reach into her soul.

She could see in the open square before her house the tops of trees that were all aquiver with the new spring life. The delicious breath of rain was in the air. In the Street below a peddler was crying his wares. The notes of a distant song which someone was singing reached her faintly, and countless sparrows were twittering in the eaves.

There were patches of blue sky showing here and there through the clouds that had met and piled one above the other in the west facing her window.

She sat with her head thrown back upon the cushion of the chair, quite motionless, except when a sob came up into her throat and shook her, as a child who has cried itself to sleep continues to sob in its dreams.

She was young, with a fair, calm face, whose lines bespoke repression and even a certain strength. But now there was a dull stare in her eyes, whose gaze was fixed away off yonder on one of those patches of blue sky. It was not a glance of reflection, but rather indicated a suspension of intelligent thought.

There was something coming to her and she was waiting for it, fearfully. What was it? She did not know: it was too subtle and elusive to name. But she felt it. creeping out of the sky, reaching toward her through the sounds, the scents, the color that filled the air.

Now her bosom rose and fell tumultuously. She was beginning to recognize this thing that was approaching to possess her, and she was striving to beat it back with her will—as powerless as her two white slender hands would have been.

When she abandoned herself a little whispered word escaped her slightly parted lips. She said it over and over under her breath: "free, free, free!" The vacant stare and the look of terror that had followed it went from her eyes. They stayed keen and bright. Her pulses beat fast, and the coursing blood warmed and relaxed every inch of her body.

She did not stop to ask if it were or were not a monstrous joy that held her. A clear and exalted perception enabled her to dismiss the suggestion as trivial.

She knew that she would weep again when she saw the kind, tender hands folded in death: the face that had never looked save with love upon her, fixed and gray and dead. But she saw beyond that bitter moment a long procession of years to come that would belong to her absolutely. And she opened and spread her arms out to them in welcome.

There would be no one to live for her during those coming years; she would live for herself. There would be no powerful will bending hers in that blind persistence with which men and women believe they have a right to impose a private will upon

a fellow-creature. A kind intention or a cruel intention made the act seem no less a crime as she looked upon it in that brief moment of illumination.

And yet she loved him—sometimes. Often she had not. What did it matter! What could love, the unsolved mystery, count for in the face of this possession of self-assertion which she suddenly recognized as the strongest impulse of her being!

"Free! Body and soul free!" she kept whispering.

Josephine was kneeling before the closed door with her lips to the keyhole, imploring for admission. "Louise, open the door! I beg; open the door—you will make yourself ill. What are you doing. Louise! For heaven's sake open the door."

"Go away. I am not making myself ill!" No; she was drinking in a very elixir of life through that open window.

Her fancy was running riot along those days ahead of her. Spring days, and summer days, and all sorts of days that would be her own. She breathed a quick prayer that life might be long. It was only yesterday she had thought with a shudder that life might be long.

She arose at length and opened the door to her sister's importunities. There was a feverish triumph in her eyes, and she carried herself unwittingly like a goddess of Victory. She clasped her sister's waist, and together they descended the stairs. Richards stood waiting for them at the bottom.

Someone was opening the front door with a latchkey. It was Brently Mallard who entered, a little travel-stained, composedly carrying his gripsack and umbrella. He had been far from the scene of accident, and did not even know there had been one. He stood amazed at Josephine's piercing cry; at Richards' quick motion to screen him from the view of his wife.

But Richards was too late. When the doctors came they said she had died of heart disease—of the joy that kills.

1. What is the theme of the story? List two reasons to support your answer.
2. Identify the narrative point of view in "The Story of an Hour."
 - ___ a. first person
 - ___ b. Kate Chopin
 - ___ c. third person
 - ___ d. Mrs. Mallard
3. Reread paragraphs five and six. State a symbol in those paragraphs, and explain its meaning.
4. Who is the antagonist in the story? Explain your choice, using a reference from the text.
5. The ending is ironic because:
 - ___ a. her husband lives.
 - ___ b. Josephine was wrong.
 - ___ c. she found out she didn't love her husband.
 - ___ d. she died from disappointment, not from happiness.
6. *She arose at length and opened the door to her sister's importunities.* The word *importunities* means:
 - ___ a. important actions
 - ___ b. gentle interruptions
 - ___ c. persistent demands
 - ___ d. polite requests
7. How does the first paragraph of the story foreshadow the ending of the story? Be sure to refer directly to the story in your answer.

Research and Thinking Skills (*Questions 8 through 10 relating to this example assesses Reading and Writing Standards 1,4, and 5*)

Take a few minutes to familiarize yourself with the portion of the 1040EZ income tax form shown below. Then complete the questions that follow.

Department of the Treasury—Internal Revenue Service
Form 1040EZ Income Tax Return for Single and Joint Filers With No Dependents (99) 1999 OMB No. 1545-0675

| | | | | |
|-------------------------------|--|---|--|--|
| Use the IRS label here | Your first name and initial _____ Last name _____ | Your social security number | | |
| | If a joint return, spouse's first name and initial _____ Last name _____ | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | |
| | Home address (number and street), if you have a P.O. box, see page 12 _____ Apt. no. _____ | Spouse's social security number | | |
| | City, town or post office, state, and ZIP code, if you have a foreign address, see page 12 _____ | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | |

Presidential Election Campaign (See page 12.) **Note.** Checking "Yes" will not change your tax or reduce your refund.
 Do you want \$3 to go to this fund? Yes No **IMPORTANT! ▲** You must enter your SSN(s) above.
 If a joint return, does your spouse want \$3 to go to this fund? Yes No

| Income | Line | Dollars | Cents |
|--|------|----------------------|----------------------|
| 1 Total wages, salaries, and tips. This should be shown in box 1 of your W-2 form(s). Attach your W-2 form(s). | 1 | <input type="text"/> | <input type="text"/> |
| 2 Taxable interest. If the total is over \$400, you cannot use Form 1040EZ. | 2 | <input type="text"/> | <input type="text"/> |
| 3 Unemployment compensation, qualified state tuition program earnings, and Alaska Permanent Fund dividends (see page 14). | 3 | <input type="text"/> | <input type="text"/> |
| 4 Add lines 1, 2, and 3. This is your adjusted gross income . | 4 | <input type="text"/> | <input type="text"/> |
| 5 Can your parents (or someone else) claim you on their return? Yes. Enter amount from worksheet on back. <input type="checkbox"/> No. If single , enter 7,050.00. If married , enter 12,700.00. See back for explanation. <input type="checkbox"/> | 5 | <input type="text"/> | <input type="text"/> |
| 6 Subtract line 5 from line 4. If line 5 is larger than line 4, enter 0. This is your taxable income . | 6 | <input type="text"/> | <input type="text"/> |

Note. You must check Yes or No.

8. Name one factor that would make you ineligible to file the 1040EZ form. _____
9. According to the directions on the 1040EZ form, what should you do with your W-2 form?

10. If you are single and cannot be claimed as someone's dependent, what amount can you claim for a personal exemption?
- ___ a. \$400
 - ___ b. \$10,030
 - ___ c. \$7,050
 - ___ d. \$12,500

Writing

Students complete two kinds of writing tasks. The first are short -response tasks, in which students quickly write a brief assignment in a limited time. The second, such as the example below, is a longer writing task for which students are given time to plan, draft, revise, and edit their work before submitting it. (*The example assesses Reading and Writing Standards 2 and 3*)

*To see a World in a Grain of Sand
And a Heaven in a Wild Flower
Hold Infinity in the palm of your hand
And Eternity in an hour*

William Blake

In a world of so much exaggeration and excess, where bigger is often thought to be better, Blake's poem reminds us that our most powerful insights are often occasioned by the small things — a grain of sand, a wild flower, an hour.

Think of your own moments of insight when you observed and reflected on some small thing — a cobweb, a hummingbird, an empty storefront, a broken window, or an occasion — a smile, a word of encouragement from someone you admire, waking up on a sunny or a rainy day. Think about how such small observations or occasions can lead to insights about life and human nature.

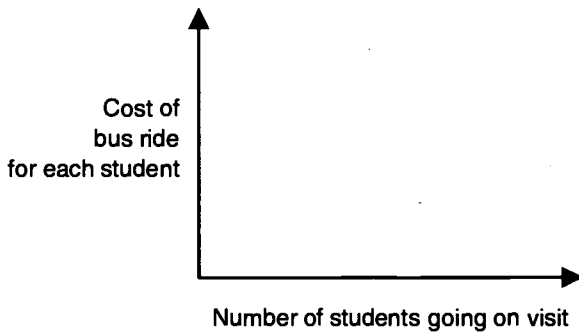
Write an essay in which you reflect on a memorable small thing or occasion. As you consider your own experiences and insights, explore whatever ideas occur to you about how small things can play a large role in people's lives.

Mathematics

1. If x and y are integers, then the expression $4x + 5y$ has a value that is odd or even, depending on the values of x and y . For example, if x and y are each even, $4x$ is even and $5y$ is even. Therefore, $4x + 5y$ is also even. Fill in each of the blank spaces in the following table with either "odd" or "even" for the value of $4x + 5y$. (This question assesses Mathematics Standard 1)

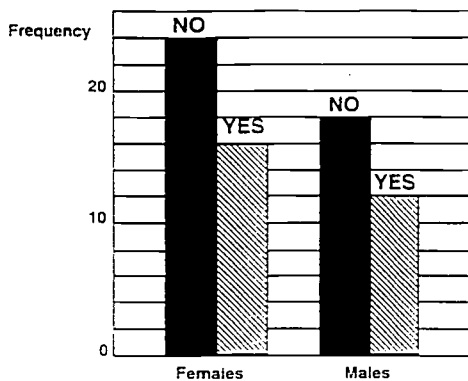
| Value of x | Value of y | Value of $4x + 5y$ |
|--------------|--------------|--------------------|
| even | even | even |
| even | odd | |
| odd | even | |
| odd | odd | |

2. A Grade 10 class is planning a visit to the university campus. A bus company offers to rent a bus to them for \$240. This cost will be shared equally among every student going on the visit. (This question assesses Mathematics Standard 2)
- Sketch a graph to show how the cost of the bus ride for each student depends upon the number of students going.
 - if n = the number of students going on the visit, and c = the cost of the bus ride for each student, write an equation containing n and c .



Show your reasoning below:

3. A woman is on trial for picking pockets. Maria conducts a survey to determine whether males are more likely than females to think the woman is guilty. She asks the students in her class this question: "Do you think that the woman on trial is guilty?" The diagram below shows the replies to her survey. Analyze the graph and give your conclusions about the differing views of males and females. Show clearly below any calculations you used to arrive at these conclusions. (This question assesses Mathematics Standard 3)



4. Brighto soap powder is packed in cube-shaped cartons. A carton measures 10 cm on each side. The manufacturer decides to increase the length of each edge of the carton by 10 percent. How much will the volume increase? (This question assesses Mathematics Standard 4)

___ a. 10 cm^3 ___ b. 21 cm^3 ___ c. 100 cm^3 ___ d. 331 cm^3

5. A 45,000-liter water tank is to be filled at the rate of 220 liters per minute. Estimate, to the nearest half an hour, how long it will take to fill the tank? *(This question assesses Mathematics Standard 5)*
- ___ a. 4 hours
- ___ b. 3 ½ hours
- ___ c. 3 hours
- ___ d. 2 ½ hours
6. Samantha has narrowed her choice of a used car to either a 1999 Virgo or a sportier, but older, 1998 Gemini. To help her decide, she compiled the important information in the table below: *(This question assesses Mathematics Standard 6)*

| | | 1999 Virgo | 1998 Gemini |
|------------------|--------------------------|------------|-------------|
| Purchase Data | Price | \$6995 | \$5549 |
| | Dealer Fees/Registration | \$193 | \$167 |
| | Taxes | \$419.70 | \$332.94 |
| Maintenance Data | Annual Insurance | \$720 | \$869 |
| | Miles/gallon | 31 | 22 |
| | Annual maintenance | \$375 | \$550 |

Samantha will keep the car for 5 years, drive about 10,000 miles each year and pay \$1.20/gallon for gasoline. Calculate the total expense for each of the cars over 5 years, including both purchase and maintenance and explain which car she should buy on the basis of which is less expensive.

Answers

Reading

1. freedom, independence;*
see below
2. c
3. blue sky, distant song,*
see below
4. husband, marriage*
5. d
6. c
7. see below
8. You have dependents*
9. Attach Copy B of form*
10. c

Writing

See student writing and evaluation below.

Math

1. even (given)
odd
even
odd
- 2.a see page 7
- b. $\$C = 240/n$
3. see page 7
4. d
5. b
6. Virgo. see page 7

*These are examples several possible correct answers.

Reading

1. Statements containing the concept of joy at being freed from a situation in which she felt trapped, her need for self-assertion, her fatal shock at realizing she is not free after all.
3. Statements illustrating symbols such as blue sky representing a bright new life, or a distant song symbolizing her hope for the future
7. The paragraph states, "...Mrs. Mallard was afflicted with heart trouble,..."

Writing

The following essay describes a memorable small thing or occasion.

Pre-Calc With Laura

"So," I queried. "do you understand the pre-calc, Laura?" She was sitting next to me in fifth period Pre-Calculus, and had a perplexed look on her face.

"Not really. I get the first part, but the section on surface area of geometric solids is still not clicking." Laura gazed at the board again and with a look of defeat. started the next night's homework, as though that would help her understand the previous night's assignment.

"Hang on a sec," I said, and proceeded to carefully map out a "proof" of the problems so they could be more easily understood. It only took me a few minutes, maybe 5 at the outside, and I handed it to Laura, saying. "Here. See if this helps you understand the homework."

"All right. Thanks." Laura studied it for a few minutes, asked me a few "whys" and "hows" and then I saw it. The thing every teacher dreams of seeing: that magic little

light bulb going on in someone's head as she gains a new bit of understanding.

Oh, I get it." she said. "When you used such-and-such formula to get the areas of this-and-that, then multiplied it by the cost, you had to reduce this, find the common denominator, and that the answer. Thanks."

"No problem." I said. It really wasn't either. A few minutes of my time had saved someone else what may have taken half an hour or hours for her to understand."

"Hey," called Laura. "You're really a nice guy."

"Thanks," I said, and I meant it. Laura had been sincere when she told me that, and it really made my day. The fact that someone really appreciated the time I took to help her made me feel great inside. It's interesting how a few kind words can brighten a person's day, and sometimes his week. I go through life constantly asking questions, and frequently having questions asked of me.

Whenever someone helps me, I thank him with sincerity because that's how I have been raised. My parents always said,

"Whenever anybody does anything for you, thank him; he took time out of his life to put into yours, and he deserves your thanks." Occasionally there is an insincere "thanks" or more often, no recognition at all for helping someone. So when somebody does give a heartfelt "thanks," it really means a lot to me.

I wish there were more people in this fast-paced, high-priced world who gave thought to how they reached their current station in life, and thanked the people who helped them attain their goals. I mean really thanked them. Not just writing a letter, but calling them up (although letters are nice) or taking them out to lunch, or something. Anything to let those people (usually teachers and family) know they are really appreciated. I wish there were more people who learned to care. People like Laura.

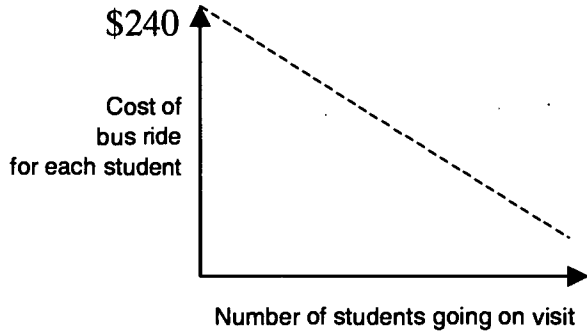
Rating:

(Scale: 4 high, 1 low) Content/Organization: 4 Style/Fluency: 4

Language Usage: 2

Mathematics

2a.



The cost of the bus is \$240 regardless of the number of students, so as the number of students increases, the cost per student decreases.

3. % of females thinking not guilty = $24/40 = 60\%$
 % of males thinking not guilty = $18/30 = 60\%$
 60% of both males and females believe the woman on trial is not guilty.

6.

| Virgo | |
|------------------|--------------------|
| Total sales cost | \$7607.00 |
| Insurance | \$3600.00 |
| Gasoline | \$1935.48 |
| Maintenance | \$1875.00 |
| Total | \$15,018.18 |

Price + Fees + Tax
 Annual Insurance x 5
 50,000 miles/miles per gallon x \$1.30
 Annual maintenance x 5

| Gemini | |
|------------------|--------------------|
| Total sales cost | \$6048.94 |
| Insurance | \$4345.00 |
| Gasoline | \$2727.27 |
| Maintenance | \$2750.00 |
| Total | \$15,871.21 |

Credits:
 Math question 1 *Student Work & Teacher Practices in Mathematics*. National Center for Education Statistics, Office of Educational Research and Improvement, U. S. Department of Education, 1999
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 Math question 6 released from the Connecticut Department of Education

What Your 11th Grader Should Know About Reading, Writing, Math, and Science

The ACT Assessment® is a national college readiness exam. It evaluates high school students' general educational achievement in English, mathematics, reading, and science reasoning. Students who want to go to college must take this test during their junior or senior years of high school.

This guide provides just a few example problems like the ones your child will solve in the ACT exams. The actual ACT test booklet contains 75 English, 60 mathematics, 40 reading, and 40 science reasoning items.

Please read and go over these questions with your child. That way you'll get a good idea of the areas your child has mastered and those that still need work. And after you've discussed these sample questions, why not set aside some time to visit your child's high school library, where you can review the complete set of ACT practice tests on CD-ROM? That will give you both a better understanding of the challenges the whole exam presents, and it will help your child become comfortable with the material in advance of taking the test.

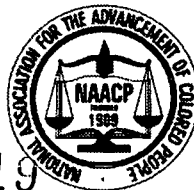
Your active involvement in the preparation process will help your 11th-grader perform well on the ACT. And the better your child performs on the ACT, the more likely he or she will do well with college-level work.

11th
Grade

Developed as a Partnership of the Colorado Department of Education and the NAACP.

We thank ACT for permission to reproduce the example questions presented in this leaflet.

cde



English

The ACT English test contains 75 questions that must be completed in 45 minutes. The exam measures students' mastery of punctuation, grammar, sentence structure, strategy, organization, and style.

Instructions: Certain words and phrases in the following passages are underlined and numbered. In the right-hand column are alternatives for each underlined part. Choose the best response. If you think the original version is best, mark **NO CHANGE**.

A Homecoming

During the American Revolution thousands of slaves (1) were chose to flee from their American owners and seek refuge (2) and British protection from danger. Many Americans tried to reclaim their slaves after the war, but the British refused to turn them (3) over, offering the escaped slaves a home in Nova (4) Scotia (Latin for New Scotland). After ten years in Canada, a group of about 2,000 blacks decided to emigrate to Sierra Leone in West Africa.

1. A. NO CHANGE
B. chose
C. choose
D. chosed
2. F. NO CHANGE
G. in the protection of British shelter.
H. among the British.
J. and shelter.
3. A. NO CHANGE
B. over. Offering
C. over, offering
D. over, and offering
4. F. NO CHANGE
G. Scotia. which is the Latin for New Scotland.
H. Scotia—New Scotland in Latin.
J. Scotia.

Many famous Americans lost slaves in this (5) manner. For example, seventeen of George Washington's slaves escaped in British (6) patrolling the Potomac River boats. At least (7) three of those, who escaped, went to Nova Scotia and were among the group who eventually settled in Sierra Leone.

5. A. NO CHANGE
B. manner, for example,
C. manner, for example
D. manner for example,
6. F. NO CHANGE
G. (Place after Washington's)
H. (Place after escaped)
J. (Place after boats and end sentence with a period)
7. A. NO CHANGE
B. three of those who escaped
C. three of those who escaped,
D. three, of those who escaped,

Hundreds of escaped slaves (8) who fled from their owners assisted the British during the War of Independence. Many of them fought alongside the British in a company known as "The Black Pioneers." One of these men, Thomas Peters, became a spokesperson for the blacks in Canada, expressing grievances against their white neighbors there. Forced to accept the least desirable jobs, most blacks were very poor. Some of them were even being kidnapped, taken to the United States, and (9) sold back into slavery. Peters traveled to England to complain of the treatment of blacks in Nova Scotia and, while there, (10) also visited Scotland and Ireland.

8. F. NO CHANGE
G. who ran away from the servitude of their ownership
H. hightailing it for freedom
J. OMIT the underlined portion.
9. A. NO CHANGE
B. the kidnappers sold them back into slavery.
C. they once again became slaves.
D. again live the life of a slave.
10. Assuming all are true, which of the alternatives would provide information that is most consistent with the main emphasis of the essay?
F. NO CHANGE
G. was able to view the home of Shakespeare.
H. promoted the Sierra Leone emigration.
J. was able to tour the infamous Tower of London.

Perhaps as many as a third of the blacks who went to Sierra Leone were African-born. But the chance that they would be able to return to the actual village of their birth was slim. (11) Nevertheless, some did succeed in completing this long and circuitous journey that ended in an emotional homecoming.

The story of the escaped slaves proves that the idea of independence was held just as dear by black Americans in 1776 (12) than it was by whites. Many thousands of slaves risked their lives to (13) escape. hundreds died of disease and exposure along the way to Canada. Later, though, a large number who managed to reach the British territory refused to accept their (14) second-class status there and found new homes for themselves in Africa.

Item 15 poses a question about the essay as a whole.

11. A. NO CHANGE
B. In addition,
C. On the contrary,
D. Thus,

12. F. NO CHANGE
G. like
H. as if
J. as
13. A. NO CHANGE
B. escape
C. escape, and
D. escape, therefore,

14. Which of the alternatives most effectively and accurately describes the situation of the escaped slaves in Canada?
F. NO CHANGE
G. inalienable rights
H. circumstances
J. privileges

15. Suppose a magazine editor were to ask the writer of this essay to write a sentence that would serve as a caption for or summary of the essay. Which of the following would most effectively accomplish that purpose?
A. During the American Revolution, thousands of African-American slaves felt a strong urge to join their owners' fight for freedom.
B. The tiny West African country of Sierra Leone owes the leaders of the American Revolution a debt of thanks for their discovery and settling of it.
C. While the American colonies were involved in breaking their ties with England, many American slaves were finding a way to gain their own freedom.
D. The participation of African-American slaves in the War of Independence most likely altered the outcome of that great event.
-

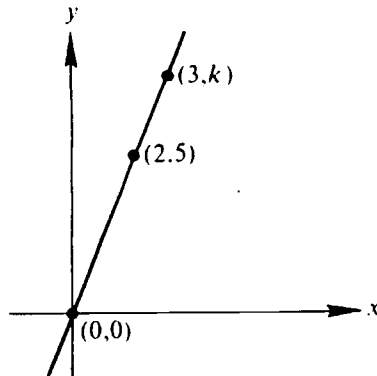
Mathematics

The ACT mathematics test contains 60 questions that must be covered in 60 minutes. The math test assesses skills that are essential to successful performance in entry-level college math courses. The topic areas covered are pre-algebra/elementary algebra, intermediate algebra/coordinate geometry, and plane geometry/trigonometry. Students are permitted to use calculators for mathematics portion of the ACT.

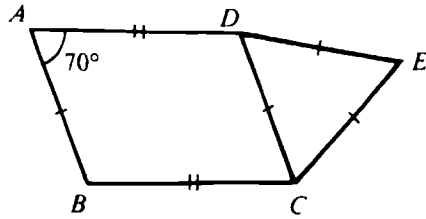
Instructions: Solve each problem, choose the correct answer, then fill in the corresponding oval on your answer document. . . You may use a calculator on this test.

- A beaker of liquid cools from 19° to -6° . By how many degrees has it cooled?
F. 6°
G. 13°
H. 19°
J. 25°
K. 26°
- In the (x,y) coordinate plane, what is the slope of the line $y = x - 5$?
F. -6
G. -1
H. $1/5$
J. 1
K. 5
- A car rental company charges \$50.00 per day plus \$0.80 per mile for a full size car, and charges \$30.00 per day plus \$0.50 for a compact car. Which expression below gives the amount, in dollars, that the charge for a full-size car exceeds the charge for a compact car, when each is rented for x days and y miles?
F. $-20x - 0.30y$
G. $20x + 0.30y$
H. $20x + 30y$
J. $20x + 1.30y$
K. $80x + 1.30y$
- In the (x,y) coordinate plane below, a straight line passes through the 3 indicated points. What is the value of k ?

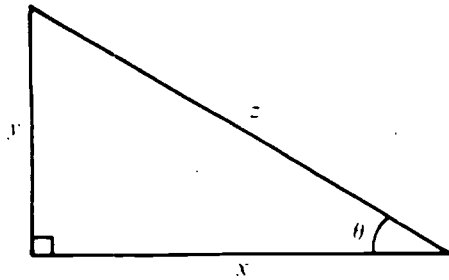
- $-\frac{15}{2}$
- $-\frac{6}{5}$
- $\frac{6}{5}$
- 6
- $\frac{15}{2}$



5. The figure below is made from a parallelogram, $ABCD$, and an equilateral triangle, $\triangle CDE$. What is the measure of $\angle ADE$?



- A. 110°
 B. 130°
 C. 150°
 D. 170°
 E. 190°
6. For the right triangle below, which of the following expressions is equal to $\cos \theta$?



- A. $\frac{x}{y}$
 B. $\frac{x}{z}$
 C. $\frac{y}{x}$
 D. $\frac{y}{z}$
 E. $\frac{z}{x}$

Reading

The reading portion of the ACT is a 40-question, 35 minute test that assesses reading comprehension of passages of prose fiction, social science, humanities, and natural science. The questions assess students' ability to derive essential meaning from what is written and to draw conclusions, comparisons, and generalizations from the text. The passage below is a representative social science reading.

Instructions: After reading the passage below, choose the best answer to each question and fill in the corresponding oval on your answer document.

SOCIAL SCIENCE: This passage is adapted from the biography *Huey Long* by T. Harry Williams (©1969 by Alfred A. Knopf, Inc.).

The story seems too good to be true—but people who should know swear that it is true. The first time that Huey P. Long campaigned in rural, Latin, Catholic south Louisiana, the local boss who had him in charge

- 5 said at the beginning of the tour: "Huey, you ought to remember one thing in your speeches today. You're from north Louisiana, but now you're in south Louisiana. And we got a lot of Catholic voters down here."
- "I know," Huey answered. And throughout the day in
- 10 every small town Long would begin by saying: "When I was a boy, I would get up at six o'clock in the morning on Sunday, and I would hitch our old horse up to the buggy and I would take my Catholic grandparents to mass. I would bring them home, and at ten o'clock I
- 15 would hitch the old horse up again, and I would take my Baptist grandparents to church." The effect of the anecdote on the audiences was obvious, and on the way back to Baton Rouge that night the local leader said admiringly: "Why, Huey, you've been holding out on
- 20 us. I didn't know you had any Catholic grandparents." "Don't be a . . . fool," replied Huey. "We didn't even have a horse."

- Some people would say today, as some said then, that the incident was characteristic of Huey P. Long,
- 25 that it revealed all the cynicism and contempt of democracy and all the scheming ruthlessness of the man who seemed in the 1930's to be the first American dictator, the first great native fascist, who was compared to Hitler and Mussolini, who finally commanded
- 30 one of the largest mass followings in the country and appeared to be on the verge of taking over the national government as he had his own state. And he was a new type of leader on the American scene—this man whose reddish-brown hair dipped rebelliously over his fore-
- 35 head, whose full and facile face could in a moment shift from its usual expression of mischief to one of consuming anger, who could act like a rustic clown off the platform and turn into a magnetic spellbinder when he stepped on it. A pudgy pixie who could suddenly
- 40 become a demon, lie was different—and yet in many ways he was completely traditional. His many enemies missed the latter aspect. . . . But not even they could deny that something made him surpassingly interesting; something set hut, apart from other leaders of his
- 45 time. . .

1. It can reasonably be inferred from the third paragraph (lines 46-64) that Huey Long considered himself to be a:
 - A. mediocre, but lucky, politician.
 - B. liberal of the Eastern, rather than Southern, type.
 - C. brilliant politician.
 - D. smarter politician than Roosevelt.
2. Long believed that Republicans were incapable of:
 - F. handling the problems of the depression.
 - G. dealing with big business.
 - H. winning the 1936 presidential election.
 - J. ruining the country.
3. As it is used in line 53, the word *stumped* most nearly means:
 - A. cleared.
 - B. baffled.
 - C. campaigned.
 - D. trimmed.
4. The Democrats' fear of Huey Long prior to the 1936 presidential campaign is an indication of:
 - F. Long's power and popularity.
 - G. Roosevelt's strength.
 - H. their fear in general of presidential elections.
 - J. their indifference to third parties.
5. It can reasonably be inferred from the third paragraph (lines 46-64) that Huey Long's desire to be president began when he:
 - A. became a liberal Democrat.
 - B. was a young man.
 - C. first met Franklin D. Roosevelt.
 - D. made his first speech.
6. According to the passage, even Huey Long's enemies at least had to admit he was:
 - F. a religious man.
 - G. an intriguing character.
 - H. a powerful third-party candidate.
 - J. completely traditional.
7. According to the account in the passage, Huey Long's plan to win the presidency in 1940 indicates that Long considered his political aspirations to be:
 - A. more closely aligned with the Republican party.
 - B. unimportant compared to the effects of the depression.
 - C. unrealistic given Roosevelt's overwhelming popularity.
 - D. more important than the nation's well-being.

He went to Washington with the conviction that his destiny would lead him to the presidency, just as from youth he planned step by step the career that would lead him to the highest office. He entered the

- 50 *Senate as a liberal Democrat, a supporter of men and measures to curb big business. In 1932 he advocated that his party nominate as its presidential candidate Franklin D. Roosevelt. . . . Long stumped vigorously for Roosevelt in the campaign, and after the latter's selection there was a brief period when it seemed that the two were going to make an unusually effective combination, the Eastern and the Southern liberals working together for liberal reform. That possibility evaporated almost immediately. . . . He realized that Roosevelt was a man who had a will*
- 60 *fully as strong as his own and who was also just as great a politician. Returning from an interview with Roosevelt, he said to a close friend: "I found a man as smart as I am. I don't know if I can travel with him.*
- 65 *Roosevelt . . . feared what Long might accomplish as a conventional political operator, as a rival who might unseat him from the presidency. On the eve of the election of 1936 most of the talk at Democratic headquarters concerned Long's intentions, and it was scared*
- 70 *talk. Would Huey be a presidential candidate on a third-party ticket? . . . Long himself had a somewhat different plan. According to the testimony of intimates, he intended to run some liberal Democrat as a third-*
- 75 *party entry and so divide the liberal vote that the Republican candidate would win. The Republicans would be incapable of dealing with the depression, the economic system would go to pieces, and by 1940 the country would be crying for a strong leader to save*
- 80 *it. . . . Conceivably, it might have happened just as he thought it would. Just as conceivably, it might not have. Long might well have foundered on the rock of the two-party system, as other gifted political rebels before him had done. Instead of grasping the supreme*
- 85 *success he saw as his destiny, he might have lived out his life as a frustrated and embittered secondary politician. What might have been can never be known. Fate, which has shattered the dreams of other strong*
- 90 *men, suddenly intervened. On a warm September night in 1935 Huey Long, at the height of his power, apparently invincible, was shot down by an assassin in his capitol at Baton Rouge.*

8. Huey Long's plan to "so divide the liberal vote that the Republican candidate would win" (lines 74-75) hinges upon the assumption that:
- F. some Democrats would vote for the third-party entry.
 - G. most Democrats would vote Republican.
 - H. all Democrats would vote for the third-party entry.
 - J. most Republicans would vote for the third-party entry.
9. According to the last paragraph, the author believes that if Huey Long would have had the chance to follow through on his plan:
- A. Long would have failed to become president because fate would have intervened.
 - B. Long would have obtained even more power as a third-party candidate.
 - C. Long may have become a Republican candidate for president.
 - D. Long's chances for winning the presidency were about the same as his chances for losing.
10. According to the passage, Huey Long supported legislation to:
- F. enforce communist control in America.
 - G. restrain big business.
 - H. help big business.
 - J. aid the Republican party.

Science Reasoning

The science reasoning part of the ACT contains 40 questions that must be completed in 35 minutes. Students may *not* use calculators for this portion of the test. This part of the exam uses data, descriptions of research studies, and conflicting viewpoints to measure students' ability to understand, critically evaluate, generalize, conclude, and predict based on the information provided.

Instructions: After reading the passages below, choose the best answer to each question and fill in the corresponding oval on your answer document.

Passage I: Carbon is a major element in the compounds that form all living tissues. The atmosphere contains an abundance of carbon in the form of carbon dioxide (CO_2). Carbon is continually transferred between atmospheric CO_2 and carbon found in plants, animals, bicarbonates, and their by-products. The chemical activities of plants and animals are an essential part of this carbon cycle as depicted in the figure below.

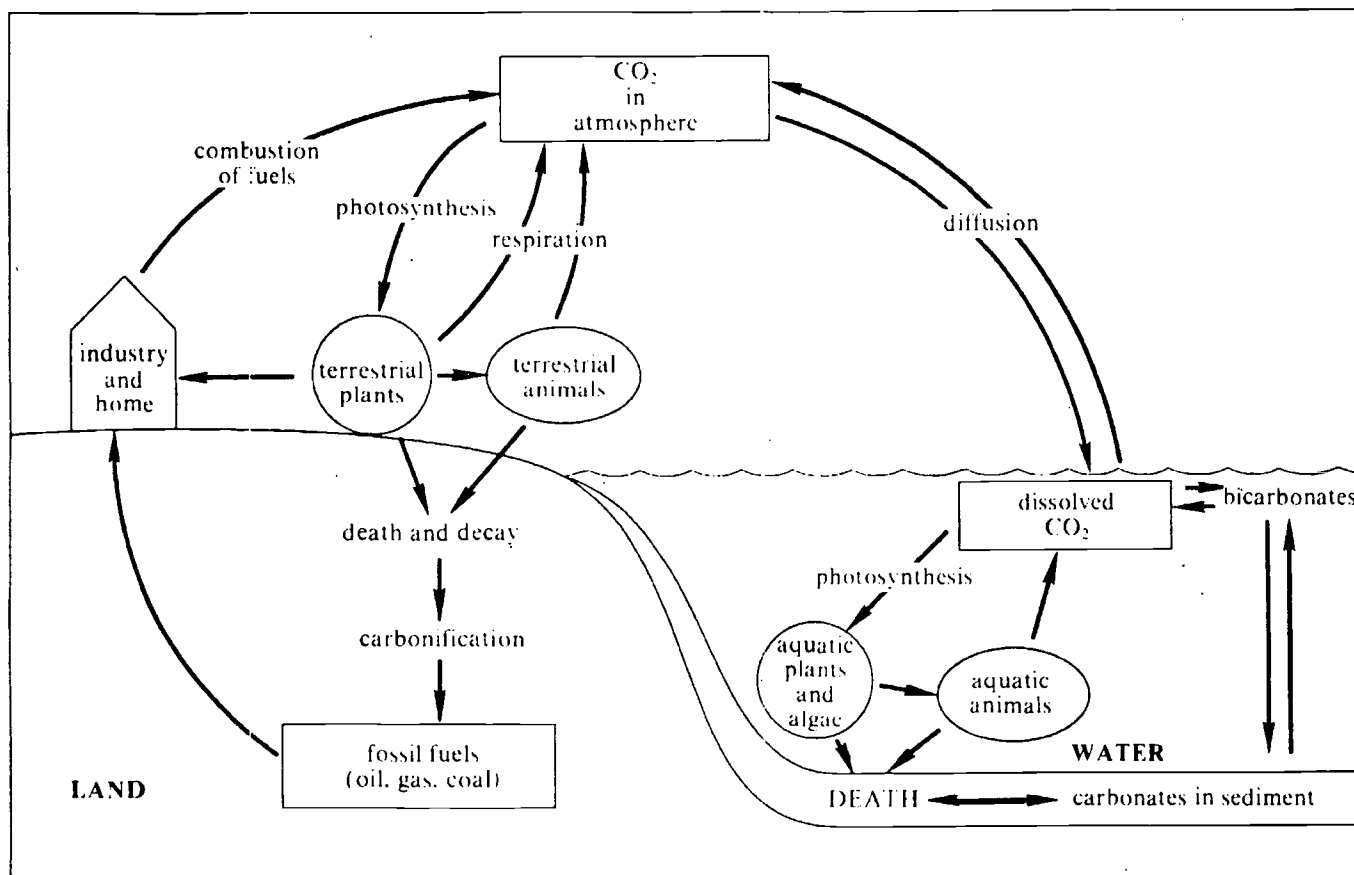


Figure adapted from Peter Raven and George Johnson, *Biology*.
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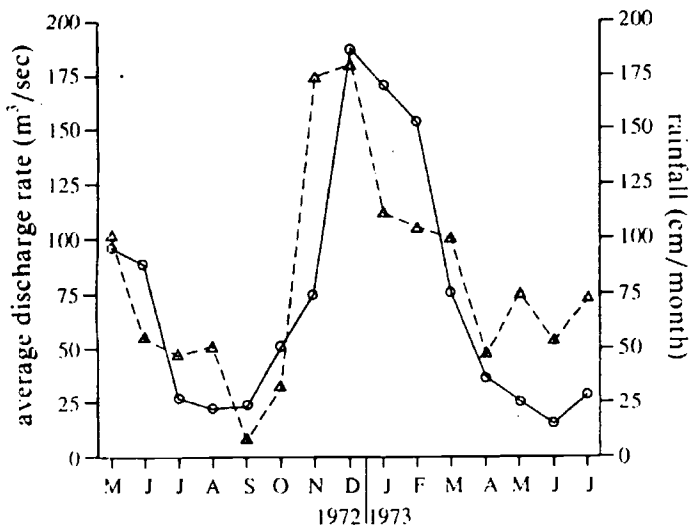
- Which of the following groups of organisms is able to directly use CO_2 from the atmosphere?

| | |
|-----------------------------|-------------------------|
| A. Terrestrial animals only | C. Aquatic animals only |
| B. Terrestrial plants only | D. Aquatic plants only |
- An increase in atmospheric CO_2 has been suggested as a cause of the *greenhouse effect*. The level of CO_2 present in the atmosphere has increased to the point that it traps the energy from sunlight in the same manner as a greenhouse. On the basis of the information provided for the carbon cycle, one would predict that the CO_2 level in the atmosphere could be reduced by:

| | |
|--|--|
| F. eliminating the use of chemical fertilizers. | H. protecting animals so that their numbers increase. |
| G. increasing the number of trees through reforestation. | J. eradicating weeds in lakes and rivers with weed killers |

3. Animals are incapable of conducting photosynthesis. According to the figure, which of the following best explains how animals obtain the carbon needed for their growth and development?
- Through eating photosynthetic organisms
 - Through the process of diffusion
 - Through the process of respiration
 - From the atmosphere in the form of CO_2
4. On the basis of the information presented in the figure, which of the following statements is(are) accurate concerning the bicarbonates?
- They release CO_2 that dissolves in water.
 - They are a direct source of carbon for animals.
 - They are an indirect source of carbon for aquatic plants.
- I only
 - III only
 - I and II only
 - I and III only
5. According to the figure, all of the following processes directly result in the addition of CO_2 to the atmosphere EXCEPT:
- combustion of fossil fuels.
 - photosynthesis by terrestrial plants.
 - respiration by terrestrial plants.
 - diffusion of CO_2 dissolved in water.

Passage II: A river discharges freshwater into a large bay (20 miles long and 10 miles wide). Figure 1 represents the average discharge rate of freshwater (in m^3/sec) from the river between May 1972 and July 1973. The rainfall (in cm/month) of the area is also shown for the same time period. Figure 2 represents how the types of water found in the bay vary with depth and time of year. Water types are distinguished by their salt content (salinity).



(Note: Data are monthly averages.)

Figure 1

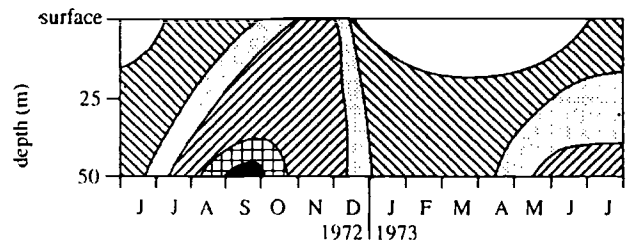
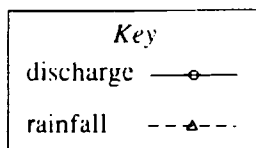
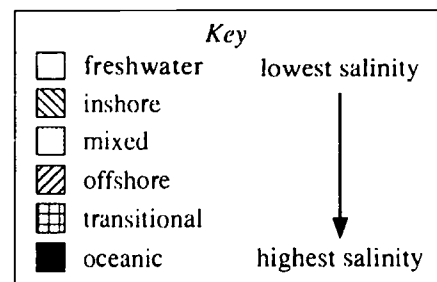


Figure 2



(Note: Salinities are shown continuously throughout each month.)

6. A certain type of fish that can only survive in fresh, surface waters is harvested in the bay. According to Figure 2, during which of the following months of the study period would one be LEAST likely to harvest that fish?
- A. June 1972
 - B. September 1972
 - C. February 1973
 - D. April 1973
7. According to the data provided for September, which water type is the densest?
- F. Freshwater
 - G. Inshore water
 - H. Mixed water
 - J. Oceanic water
8. During which of the following months was the bay water homogeneous throughout its depth?
- A. June 1972
 - B. November 1972
 - C. February 1973
 - D. April 1973
9. If an electronic probe, capable of detecting differences between water types, was placed at a given depth, it would record the most changes in water type during the study period at which of the following depths?
- F. 15m
 - G. 25m
 - H. 30 m
 - J. 50 m
10. Which of the following conclusions about levels of salinity in the bay is consistent with the information in Figures 1 and 2 ?
- A. Some of the highest salinities occurred in the bay during periods of low discharge.
 - B. The highest salinities occurred at a depth of 25 m throughout the study period.
 - C. The lowest salinities occurred at a depth of 25 m throughout the study period.
 - D. The surface water in the bay remained at the same salinity throughout the study period.

Answers

English

- 1 B
- 2 H
- 3 C
- 4 J
- 5 A
- 6 J
- 7 B
- 8 J
- 9 A
- 10 H
- 11 A
- 12 J
- 13 C
- 14 F
- 15 C

Mathematics

- 1 J
- 2 J
- 3 G
- 4 E
- 5 D
- 6 B

Reading

- 1 C
- 2 F
- 3 C
- 4 F
- 5 B
- 6 G
- 7 D
- 8 F
- 9 D
- 10 G

Science Reasoning

- 1 B
- 2 G
- 3 A
- 4 J
- 5 B
- 6 B
- 7 J
- 8 B
- 9 J
- 10 A



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