GED®

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# INFORMATION BULLETIN *on*

## *The Tests of General Educational Development*

## QUESTIONS

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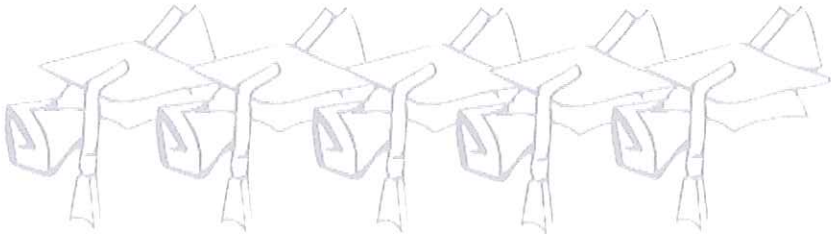
*What accommodations are available if I have a documented disability?*

*What do the GED Tests look like?*



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American Council on Education
One Dupont Circle NW, Suite 250
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# 2 GED QUESTIONS YOU MAY HAVE

Many adults who did not complete a high school program of instruction have continued to learn through a variety of experiences encountered in everyday life. The purpose of the GED Testing Program is to provide an opportunity for these individuals to have the learning acquired from such educational experiences evaluated and recognized. The GED Tests make it possible for qualified individuals to earn a high school credential, thus providing opportunities for hundreds of thousands of adults to:

- Pursue higher education
- Obtain jobs or job promotions
- Achieve personal goals

## WHAT ARE THE GED TESTS?

The Tests of General Educational Development (GED Tests) are internationally recognized. They have been designed to measure major academic skills and knowledge in core content areas that are learned during four years of high school. When an adult passes the $7\frac{1}{2}$ hour GED Tests battery, the resulting GED credential certifies that he or she has attained subject matter knowledge and skills associated with high school completion. The GED Tests battery includes the following subject area tests:

- *Language Arts, Writing*
- *Social Studies*
- *Science*
- *Language Arts, Reading*
- *Mathematics*

The GED Tests are offered in English, Spanish, and French editions.

## ARE THERE RESOURCES AVAILABLE TO HELP ME PREPARE FOR THE GED TESTS?

Passing the GED Tests may require some preparation on your part. Some individuals prepare intensively by taking classes or studying GED preparation books and other materials. Other candidates are comfortable with simply brushing up on a few of the subject areas where they feel they need practice. To determine how you should best prepare for the tests, you can start by contacting local adult education programs sponsored by school districts, colleges, and community organizations in your area. (Check your local telephone directory.) Teachers at these adult education programs can not only help you decide the extent to which you need to study for the five GED Tests, but they can also help you develop a study plan that is best for you.

There are many resources available to help you prepare for the GED Tests. The **Resources for Prospective GED Test-Takers** box on this page guides you to several specific sources of information and study materials.

### Resources for Prospective GED Test-Takers

- **Official GED Testing Centers may direct you to your closest instructional site. Call 1-800-62-MYGED (1-800-626-9433) to find the official GED Testing Center closest to you.**
- ***GED ON TV* (from Kentucky Educational Television) allows you to study at home for your GED credential. Many states broadcast the GED series. Check with your local public television station or call 1-800-354-9067 for more information. You can also visit www.ket.org/GED.**
- **Individual study allows you to prepare on your own, using materials such as commercial study guides, and the *Official GED Practice Tests*. You can contact your local official GED Testing Center to locate these preparation materials. Local libraries and bookstores also carry GED study materials.**
- **Visit the official GED Testing Service website at www.GEDtest.org for more information.**
- ***Official GED Practice Tests* are comparable in content, level of difficulty, and format to the GED Tests. You can obtain the *Official GED Practice Tests* by calling Steck-Vaughn Company at 1-800-531-5015 in the United States and Harcourt Canada at 1-800-386-7278 or 416-255-4491.**

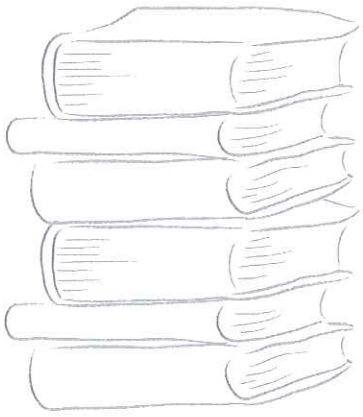
## AM I READY TO TAKE THE GED TESTS?

You can take the *Official GED Practice Tests* to determine your readiness to take the GED Tests. The *Official GED Practice Tests* questions are similar to those on the GED Tests in content, difficulty, and format. The Practice Tests are a good tool to help you decide whether you are adequately prepared to succeed on the actual GED Tests or whether you would benefit from additional study or practice. Your teacher or tutor can help you interpret your Practice Test scores to determine your next step.

## WHERE DO I TAKE THE GED TESTS?

The information you need is just a phone call away. **Call 1-800-62-MYGED (1-800-626-9433)** to find your local official GED Testing Center. The center can tell you:

- Whether you can take the GED Tests
- Where to find the *Official GED Practice Tests*
- Where to find a GED instructional program
- How much it costs to take the tests
- When the tests are given
- Other useful information



## WHAT ACCOMMODATIONS ARE AVAILABLE IF I HAVE A DOCUMENTED DISABILITY?

### What is available

If you have a documented disability that could keep you from taking the GED Tests in the way they are usually given, you might be entitled to receive testing accommodations.

### Accommodations are available for people with (but not limited to) the following:

- Physical disabilities (such as blindness, low vision, deafness, impaired hearing, or mobility impairments)
- Learning disabilities (such as dyslexia, dyscalculia, receptive aphasia, or written language disorder)
- Attention-deficit/hyperactivity disorder
- Psychological disabilities (such as bipolar disorder or Tourette's syndrome)
- Chronic health issues

### Accommodations may include:

- Audiocassette edition
- Braille edition
- Large-print edition (no documentation required)
- Vision-enhancing technologies
- Use of video equipment for candidates who are deaf or hard-of-hearing in composing the *Language Arts, Writing* essay
- Use of a talking calculator or abacus
- Certified sign-language interpreter; use of a scribe
- Extended time; supervised extra breaks
- Use of a private room
- One-on-one testing at a health facility
- Other reasonable accommodations as warranted, based on individual needs

### How to get assistance

If you have a disability that can be documented by a qualified professional, ask your local official GED Testing Center for one of these forms:

- Learning Disabilities and/or Attention-Deficit/Hyperactivity Disorder (Form L-15)
- Physical Disabilities and Emotional or Psychological Disabilities (Form SA-001)

The official GED Testing Center will tell you what you need to do to complete the form. Return the completed form with documentation of your disability to the same center. Each request is considered on an individual basis. If the accommodations are approved, your local GED Examiner will arrange with you to conduct the testing with the approved accommodations. There will be no additional cost for accommodations.

If you think you have a disability, but you do not have documentation, first contact your state's Vocational Rehabilitation Office. The National Rehabilitation Information Center (NARIC), at 1-800-346-2742, also may be able to help.

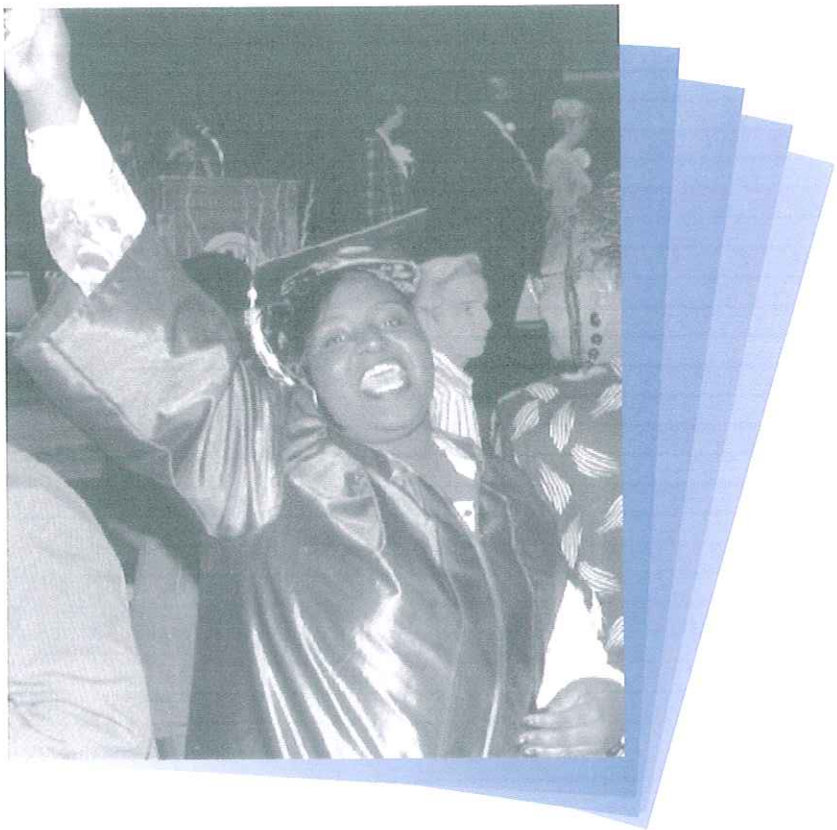
## WHAT DO THE GED TESTS LOOK LIKE?

The following five subject tests cover academic knowledge and skills in core areas required in a traditional high school curriculum: *Language Arts, Writing; Social Studies; Science; Language Arts, Reading; and Mathematics.*

The following table provides the number of questions and time limits on the GED Tests. Find out how many and which tests you are scheduled to take.

| TEST | ITEMS | TIME LIMIT |
|---|---|---|
| Language Arts, Writing, Part I | 50 questions | 75 minutes |
| Language Arts, Writing, Part II | Essay | 45 minutes |
| Social Studies | 50 questions | 70 minutes |
| Science | 50 questions | 80 minutes |
| Language Arts, Reading | 40 questions | 65 minutes |
| Mathematics, Part I | 25 questions with optional use of a calculator | 45 minutes |
| Mathematics, Part II | 25 questions without a calculator | 45 minutes |

Except for Part II of the *Language Arts, Writing Test*, which requires an essay, and the *Mathematics Test*, which requires the gridding of some answers, questions are provided in multiple-choice format. Each multiple-choice question lists five possible answer choices; you must select the best answer.



## LANGUAGE ARTS, WRITING

The *Language Arts, Writing Test* has two parts. Part I contains 50 multiple-choice questions that require you to revise and edit workplace, "how to," and informational documents. Part II assesses your ability to write an essay about a familiar topic. The scores earned on both parts are combined and reported as a single score.

### Part I

There are 50 questions on the *Language Arts, Writing Test, Part I.* They are divided among the following three question types: correction, revision, and construction shift.

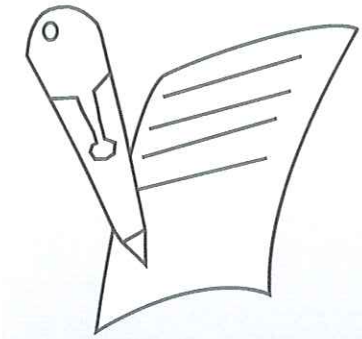
These questions address the following content areas:

**Organization** (15%): Restructure paragraphs or ideas within paragraphs, identify topic sentences, create unity and coherence in the document.

**Sentence Structure** (30%): Correct sentence fragments, run-on sentences, comma splices, improper coordination and subordination, misplaced modifiers, and lack of parallel structure.

**Usage** (30%): Correct errors in subject-verb agreement, verb tense, and pronoun reference.

**Mechanics** (25%): Correct errors in capitalization, punctuation, spelling (restricted to errors related to possessives, contractions, and homonyms).



### SAMPLE QUESTIONS

Directions: Choose the one best answer to each question.

Questions 1 through 6 refer to the following letter of application.

June 24, 2002

Jonathan Quinn
Employment Director
Capital City Gardening Services
4120 Wisconsin Ave., NW
Washington, DC 20016

Dear Mr. Quinn:

**(A)**

(1) I would like to apply for the landscape supervisor position advertised in the Sunday, June 23rd edition of the *Washington Post*. (2) My work experience and education combined with your need for an experienced landscape supervisor have resulted in a relationship that would profit both parties. (3) In May, I graduated from Prince William Community College. (4) Graduating with an associate of arts degree in horticulture. (5) My concentration within the program was designing gardens and choosing the appropriate plants for particular soils and regions. (6) I have also had considerable supervising experience. (7) For several years, I have worked with a local company, Burke Nursery and Garden Center, and have been responsible for supervising the four members of the planting staff.

**(B)**

(8) Our community knows that Capital City Gardening Services is a company that does excellent work and strives hard to meet the demands of its clients. (9) As my references will attest, I am a diligent worker and have the respect of both my coworkers and my customers. (10) I will be, as a landscape supervisor at your firm, able to put to use the skills and knowledge that I have obtained from my professional career and education. (11) I have included a copy of my resume, which details my principal interests education, and past work experience. (12) I have also included photographs of the landscape projects I have supervised as well as drawings of proposed projects.

**(C)**

(13) I am excited about the opportunities and many challenges that this position would provide. (14) Thank you for your consideration, and I look forward to hearing from you.

Sincerely,

*Patrick Jones*

Patrick Jones
1219 Cedar Lane
Manassas, VA 20109

**1** Sentence 2: **My work experience and education combined with your need for an experienced landscape supervisor have resulted in a relationship that would profit both parties.**

Which correction should be made to sentence 2?

(1) insert a comma after education
(2) change combined to combine
(3) change have resulted to would result
(4) replace profit with prophet
(5) replace parties with party's

**Answer: 3**

The use of the original verb form, "have resulted," implies that the applicant and the employer have already been working together. However, because the applicant is actually seeking employment, it is clear that he has not worked with this company before. The verb form "would result" effectively conveys the possibility for a profitable future relationship for both if the applicant were to be hired.

**2** Sentences 3 and 4: **In May, I graduated from Prince William Community College. Graduating with an associate of arts degree in horticulture.**

Which is the best way to write the underlined portion of these sentences? If the original is the best way, choose option (1).

(1) College. Graduating with
(2) College, I graduated with
(3) College. A graduation with
(4) College. Having graduated with
(5) College with

**Answer: 5**

This question requires you to identify the sentence fragment and revise it so that the resulting sentence (which combines the first sentence and the fragment) is structured more effectively.

**3** Sentence 10: **I will be, as a landscape supervisor at your firm, able to put to use the skills and knowledge that I have obtained from my professional career and education.**

If you rewrote sentence 10 beginning with

As a landscape supervisor at your firm,

the next words should be

(1) and able I will be
(2) I will be able
(3) putting and using with ability
(4) obtaining my professional career and education
(5) able to put to use I will be

**Answer: 2**

In the original sentence, the words between the commas separate main sentence parts, thereby interrupting the clear flow of ideas. By moving the distracting words to the beginning of the sentence and following with "I will be able...," the relationship of holding the position and being able to put skills and knowledge into practice is clarified.

**4** Which sentence below would be most effective at the beginning of paragraph B?

(1) There are many companies in this community, and Capital City Gardening Services is one of them.
(2) A company such as yours is known for a lot of things, especially the beautiful fountain, great billboard, and large parking area.
(3) Like carpet-cleaning services, gardening services range in cost.
(4) A company is only as good as its reputation.
(5) Gosh, I don't know where to begin when saying good things about your company.

**Answer: 4**

This question requires you to recognize that paragraph B needs a topic sentence. You must refer to the entire paragraph to select the most effective topic sentence. In organizational questions of this type, all five alternatives are grammatically correct, but because of problems in tone or content, only one alternative is appropriate.

**5** Sentence 11: **I have included a copy of my resume, which details my principal interests education, and past work experience.**

Which correction should be made to sentence 11?

(1) remove the comma after resume
(2) replace principal with principle
(3) insert a comma after interests
(4) replace past with passed
(5) no correction is necessary

**Answer: 3**

In this list of three categories that appear on the applicant's resume, a comma must be used to separate the first and second items.

**6** Which revision would improve the effectiveness of this letter?

Begin a new paragraph with

(1) sentence 3
(2) sentence 5
(3) sentence 7
(4) sentence 9
(5) sentence 12

**Answer: 1**

This organizational question requires you to study the entire document to determine where an effective paragraph break should occur. A paragraph starting with sentence 3 would clearly summarize and highlight the applicant's educational and professional qualifications.

## Part II

In the second part of the *Language Arts, Writing Test*, you will write an essay about an issue or subject of general interest. The essay topic will require you to present your opinion or explain your views about the assigned topic.

You will have 45 minutes in which to plan, write, and revise your essay. You will be given scratch paper on which you may jot notes, outline, and first draft. The answer booklet has two pages of lined paper on which you will write your final essay.

### Scoring

Two trained readers will score your essay on the basis of the following features:

- well-focused main points
- clear organization
- specific development of your ideas
- control of sentence structure, punctuation, grammar, word choice, and spelling

Each reader will score your essay on a 4-point scale, and the scores will be averaged to find your final score. If you earn a final score of less than 2 on the essay, you must retake both Parts I and II of the *Language Arts, Writing Test*. Also, you must write only on the assigned topic; if you don't, your essay will not receive a score, and you will have to retake both parts of the test.

All writers make mistakes when they write quickly. Good writers take the time to go over what is written and correct mistakes. Your writing will show your best skills if you take the time to plan what you want to say and review it to make any needed corrections.

### SAMPLE ESSAY TOPIC

**What is one important goal you would like to achieve in the next few years?**

**In your essay, identify that one goal and explain how you plan to achieve it. Use your personal observations, experience, and knowledge to support your essay.**

### Hints for Language Arts, Writing, Part I

- Make sure to read the whole document before you start to answer the questions. Some questions test your ability to create a unified paragraph or document and assume that you have already read the entire text.
- Read the document carefully. When you come across errors, think about how you would correct them. Also, consider whether all the sentences in a paragraph support the main idea. Finally, think about whether the sentences appear in logical order. Then, once you start working on the questions, you may already have an idea about the correct answers.

### Hints for Language Arts, Writing, Part II

- Use the scratch paper provided to plan out your response to the essay topic. Jot down notes, ideas, outline, or any other tools that might help you plan the organization and content of your paper.
- Organize your essay as a direct response to the topic assigned. Your essay should state your response and then explain why you answered the way you did. Make sure you address the assigned topic.
- Use details and examples that show the reader what your response is and how and why you believe it is. The more convincing your essay is, the more effective it is. Whatever the specific essay topic may be, think of your essay as an attempt to convince the reader of the correctness of your response.
- Be sure that all the details and examples you provide in your essay are directly relevant to your response to the essay topic. Stay on topic! If you are off-topic, your essay will not receive a score.
- Once you get your essay topic, plan to use some of your test time for planning and final revising in addition to writing.

## SOCIAL STUDIES

The *Social Studies Test* contains 50 multiple-choice questions from the following content areas:

- History (United States or Canada, 25%; World, 15%)
- Geography (15%)
- Civics and Government (25%)
- Economics (20%)

(Note: There are different U.S. and Canadian versions of the *Social Studies Test*.)

Most of the test questions are based on written and visual texts drawn from a variety of sources, including academic and workplace texts, as well as primary and secondary sources. The information provided may be one or more paragraphs, a chart, table, graph, map, photograph, cartoon, or figure. In every case, to answer the questions in the *Social Studies Test*, you must understand, apply, analyze, or evaluate the information provided.

### SAMPLE QUESTIONS

Directions: Choose the one best answer to each question.

Questions 1 and 2 are based on the following information.

The history of the world is filled with stories of people migrating. Migration is the movement of people from one place to another as they seek a new home. Famine, overpopulation, limited resources, war, and religious and political persecution "push" immigrants to move to another country. Hopes for employment and a better life "pull" immigrants to new places.

Millions have migrated to North America since the 1600s. Spanish, French, English, and Dutch immigrants were the first European settlers to establish permanent colonies. They settled in lands originally populated by people from Asia. Many people from Africa were driven from their homes at this time to be enslaved to work in colonies in the Americas.

Throughout the 1800s, immigrants looking for employment came to North America from Japan, China, and southeastern Europe. In the 1970s and 1980s, Southeast Asians, Latin Americans, and Caribbeans migrated to North America. Many of these immigrants fled from war-torn countries, political persecution, and economic difficulties.

**1** The government of a country may restrict the number of immigrants allowed to enter that country.

These restrictions on immigration are most likely based on what belief?

(1) An economy can support unlimited numbers of people.
(2) The "push" factors justify most immigration.
(3) Immigrants enrich the culture of a country.
(4) A country has a limited number of jobs and services.
(5) A government should not interfere with the migration of people.

**Answer: 4**

This application question requires you to focus on a universal immigration issue that is related to the information but newly introduced by the question. It is a general case of a concrete situation that faces all countries—that is, the regulation of immigration to a country. The concept of scarcity (4) is the only logical reason for restrictions among the alternatives offered.

**2** Based on the information, which is an opinion rather than a fact about immigrants to North America?

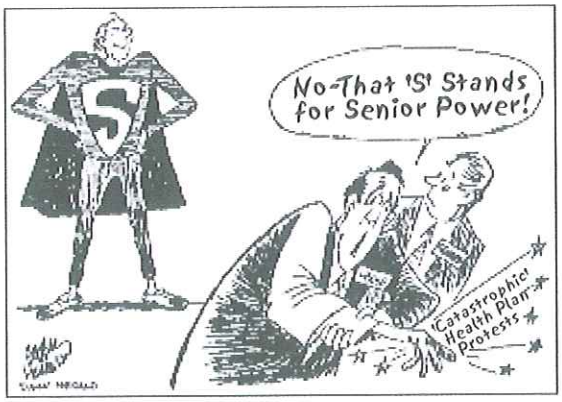
Immigrants

(1) traveled long distances to find a better life
(2) migrated to find employment
(3) learned to live in a foreign culture
(4) escaped from political persecution
(5) found a better life

**Answer: 5**

(1), (2), (3), and (4) are all facts stated or implied in the passage. (5) is what many immigrants have hoped for, but whether they have actually found a better life is unknown.

Questions 3 and 4 refer to the following cartoon.




Source: No—That "S" Stands for Senior Power! Arthur Henderson, Arlington Heights (IL) *Daily Herald*. 1989. Reprinted with permission.

**3** What is the main idea represented by the artist of this cartoon?

(1) Congress cannot pass legislation on health issues.
(2) Hatred exists between Congress and senior citizens.
(3) Senior citizens are a powerful interest group.
(4) Older people are healthier and stronger than the generation before them.
(5) Senior citizens favor Congress over the president.

**Answer: 3**

This comprehension question requires you to interpret the symbolic meaning of the person wearing the cape and to understand the meaning of the words between the two legislators in the cartoon. The answer shows the connection between cartoon superheroes and politics in the United States—senior citizens in the United States had considerable political clout at the time this cartoon was printed.

**4** Which political and economic assumption does the cartoon suggest is held by U.S. senior citizens?

(1) Seniors are entitled to certain social insurance programs.
(2) Seniors do not contribute to the economic productivity of the nation.
(3) Entitlements should be cut within the federal budget.
(4) Seniors should lobby at the state level of government, not the federal level.
(5) Social insurance programs can only be paid for by higher taxes.

**Answer: 1**

This analysis question requires you to understand that senior citizens have responded unfavorably to certain congressional plans that deal with federally funded health and welfare insurance programs that affect seniors' lives. You must know that a powerful political lobby exists in the United States that supports seniors' desire for federal support for social insurance programs. There is insufficient or contradictory evidence in the cartoon regarding (2), (3), (4), and (5).

Question 5 refers to the following chart.

**Computer Stores: Customer Satisfaction Report**

| Computer Store | Type Computer Sold | PERCENTAGE OF SATISFIED CUSTOMERS: Variety of Products | Service Promptness | Reliable Advice |
|---|---|---|---|---|
| AAA Business | Brand A<br>Brand B<br>Brand C<br>Brand D | 100% | 96% | 71% |
| Operating Systems | Brand D<br>Brand E<br>Brand F | 83% | 69% | 78% |
| Programs 'N Stuff | Brand A<br>Brand C<br>Brand D | 92% | 79% | 80% |
| Technodazzle | Brand G | 67% | 100% | 95% |
| Compu-Wonder | Brand B<br>Brand C<br>Brand F | 100% | 89% | 76% |

Source: Adapted from *Washington Consumers' Checkbook*, 1990.

**5** Some people think that stores that sell fewer brands of computers provide faster service than stores that sell a wider variety of brands.

What information from the chart supports this idea?

(1) AAA Business - 96% service promptness
(2) Operating Systems - 69% service promptness
(3) Programs 'N Stuff - 79% service promptness
(4) Technodazzle - 100% service promptness
(5) Compu-Wonder - 89% service promptness

**Answer: 4**

This evaluation question requires you to understand how to read the results of a customer survey. You must also recognize information that supports the correct generalization that customers tend to perceive that they receive faster service from businesses that sell fewer brands of a certain product (in this case, computers). Technodazzle satisfied 100% of its customers for service promptness—more than any other—and it sold only one brand of computer (4). All of the other companies (1), (2), (3), and (5) scored lower in service promptness and sold more brands of computers than Technodazzle. Technodazzle shoppers also rated the company higher in the "reliable advice" category than did the other shoppers in their experiences at other stores.

**6** "We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these rights are Life, Liberty, and the pursuit of Happiness."

Which of the following political actions violated the principle of "unalienable Rights" of liberty that evolved from the above excerpt of the U.S. Declaration of Independence?

(1) In 1857, a U.S. Supreme Court ruling promoted the expansion of slavery in U.S. territories.
(2) In 1870, the Fifteenth Amendment to the Constitution outlawed the practice of denying the right to vote because of race, color, or previous condition of servitude.
(3) In 1920, the Nineteenth Amendment to the Constitution granted women the right to vote nationwide.
(4) In 1964, the Civil Rights Act outlawed racial discrimination in employment and public accommodations.
(5) In 1971, the Twenty-sixth Amendment to the Constitution extended the right to vote to 18-year-old citizens.

**Answer: 1**

This application question requires the candidate to read and understand a short excerpt from the U.S. Declaration of Independence. The candidate must understand the meaning of "unalienable Rights" in the document and determine which, among several political actions taken by the U.S. government, have elements that deny the right to "Life, Liberty, and the pursuit of Happiness." Slavery, though legal at the time and upheld by the U.S. Supreme Court, denied liberty and political rights to many blacks in the United States and its territories in 1857 (1). The Fifteenth (2), the Nineteenth (3), and the Twenty–sixth (5) Amendments to the U.S. Constitution, and the 1964 Civil Rights Act (4) actually extended political rights to more and more people in the United States.

## Hints for Social Studies

- As you read the written selections, always ask yourself what the main idea of the text is. Often the main idea is stated or implied in the first or last sentence. If you can't find it there, pay careful attention to the details or examples in the selection to get an idea of what main point they support.
- When reading a graph, table, cartoon, map, photograph, or other visual representation, make sure to read all titles, legends, labels, captions, and data. They often provide important information about the main idea.
- Look for trends, themes, and groupings in text excerpts, time lines, charts, and graphs.
- Sometimes the questions will ask you to consider a cause-and-effect relationship. Keep in mind that a cause can have more than one effect and that, sometimes, multiple causes can result in the same effect.
- Some questions will require you to identify implications or assumptions in the material provided. This means that you will have to read between the lines of what is actually written or presented. Often, what is suggested is as important as what is directly stated.
- Pay close attention to what the question is asking you to identify. For example, one type of question asks you to differentiate between facts stated and opinions that can be drawn from the information provided. Make sure you understand the difference: facts can be proven to be true, and opinions are judgments that may or may not be true.
- Some questions ask you to draw only from the information that is provided in the question in selecting the best answer. Do not use prior or additional knowledge to answer such questions.
- Some questions will ask you to apply an idea or concept from material detailed on the test to a different situation. The most important steps in successfully answering this type of question are to understand the main idea of the original material and then think of ways that this idea can be used to interpret the new situation.

## SCIENCE

The *Science Test* consists of 50 multiple-choice questions in the following content areas:

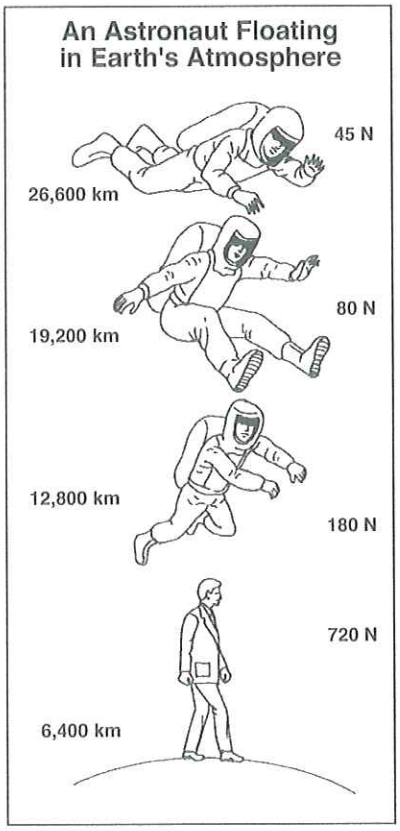
- Physical Science (physics and chemistry) (35%)
- Life Science (45%)
- Earth and Space Science (20%)

Test questions require you to understand, interpret, or apply information that is provided on the test or that is learned through life experience. The information may be a paragraph, chart, table, graph, map, or figure.

### SAMPLE QUESTIONS

Directions: Choose the one best answer to each questions.

**1** The closer we get to Earth's surface, the stronger the force of Earth's gravity becomes. This force of gravity (measured in Newtons, or N) has a much stronger effect on an individual on Earth's surface than on someone who is thousands of kilometers above Earth's atmosphere. (Note: One kilometer equals 0.6 mile.)




Source: Tracy et al., *Modern Physical Science* (Holt, Rinehart, and Winston, 1974), 285.

Which of the following statements best describes the force of gravity's effect on an astronaut floating more than 30,000 kilometers above Earth's surface?

Gravity's effect

(1) is the same as on Earth's surface
(2) is much less than on Earth's surface
(3) is significantly affected by weather conditions
(4) varies with the astronaut's age, diet, and physical condition
(5) would be less on an astronaut than on people in other occupations

**Answer: 2**

The force of Earth's gravity lessens rapidly as an object (for example, an astronaut) gets farther from Earth's center. This force of gravity is not affected significantly by weather conditions or the astronaut's physical characteristics or occupation.

**2** Clay soil forms a fairly effective barrier against the movements of water. It also swells and shrinks significantly as its water content changes. Sandy soil, in contrast, allows water to move freely and does not change shape as the water content varies.

In which statement is the appropriate soil selected for its intended site?

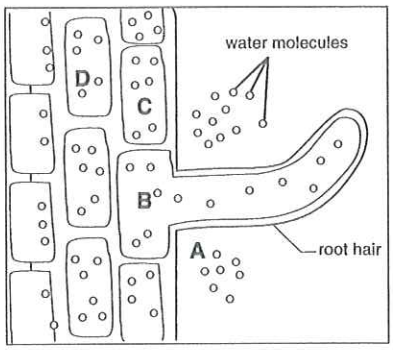
(1) Sandy soil would make a good lining for a toxic waste site.
(2) Clay soil would work well in a drain field.
(3) Clay soil would be a good foundation for a large building.
(4) Clay soil would form a good liner if a person built a pond.
(5) A sandy lake bottom would prevent water from seeping out of the lake.

**Answer: 4**

Clay soil absorbs and holds more water than sandy soil. Its ability to swell or shrink as the water content changes should help to maintain the pond by retaining more water. Because of its shifting characteristics, clay soil would not be a good choice for building a stable foundation.

**3** The root hair of a plant, shown in the diagram below, is the most efficient way for the plant to absorb water from surrounding soil.

Root Hair Growing among a Plant's Root Cells

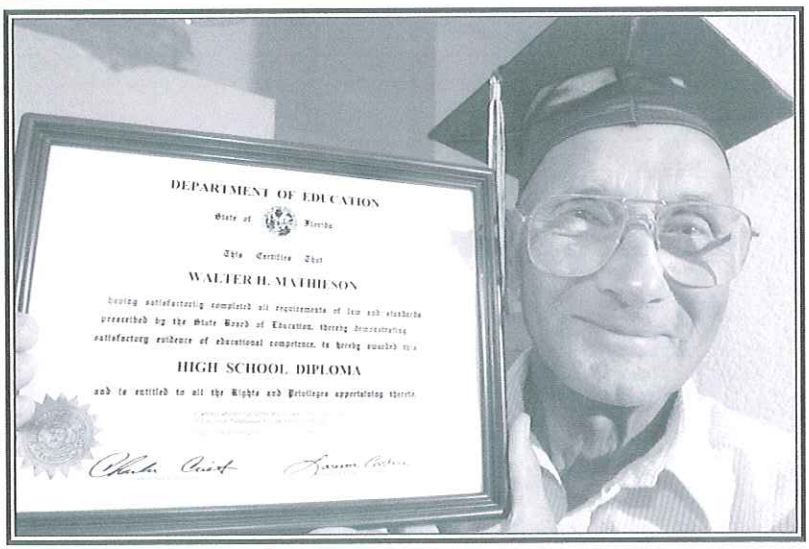



At what point is the flow of water the GREATEST?

(1) C to B
(2) C to A
(3) D to B
(4) A to B
(5) D to C

**Answer: 4**

In osmosis, water flows through a cell membrane in the direction of a higher concentration of water molecules to a lower concentration. In this example, the highest initial concentration of water molecules is located in area A, the soil, and the lowest concentration of water molecules is found in area B—the large root hair. The process of osmosis will continue from area A to B until the concentration of water molecules is balanced between the root hair and the soil.




*Charlotte Sun* photo by Jonathan Fredin

**High school graduate:** At 72 years old, Port Charlotte, Florida, resident Walter Mathieson proves that it's never too late to learn. (Reprinted with permission of *Charlotte Sun*.)

**4** A cook decides to recover some table salt that has been completely dissolved in water. Which of the following processes would be the most effective method of extracting salt from the solution?

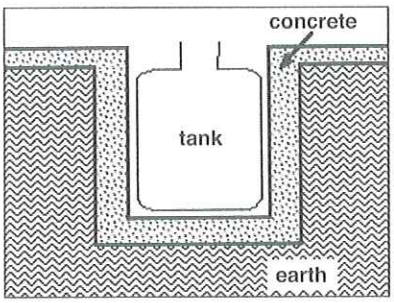
(1) spinning the solution in a mixer
(2) boiling away the water
(3) pouring the solution through cloth
(4) dripping the solution through a paper filter
(5) bubbling oxygen through the solution

**Answer: 2**

In a salt solution, microscopic particles of salt will pass through either a cloth or paper filter and will be unaffected by bubbling or spinning in a mixer, making (1), (3), (4), and (5) incorrect. Only (2)—boiling the water—will leave a salty residue on the original container.

**5** A large fiberglass tank was placed in a pit, as shown below. Before pipes could be attached and the tank filled with gasoline, however, the workers were asked to move the heavy tank to another location.

Buoyancy and a Tank




Which of the following methods would be the best way to raise the tank off the bottom of the pit so that cables could be placed under the tank?

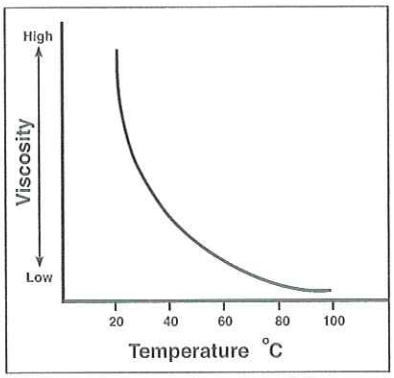
(1) Fill the tank with gasoline.
(2) Fill the tank with water.
(3) Fill the pit with water.
(4) Fill the pit with water and fill the tank with gasoline.
(5) Fill both the pit and the tank with water.

**Answer: 3**

To be buoyant, an object must displace an amount of liquid at least equal to its weight. Any action that makes the tank heavier than the weight of the liquid it displaces will prevent the tank from floating. All the alternatives except (3) will make the tank heavier than the weight of the liquid displaced. Therefore, only (3) will allow the tank to float off the bottom of the pit.

**6** Viscosity is a measure of the internal resistance of a fluid to flow. For example, motor oil is more viscous than water. The viscosity of a fluid will change with temperature. The graph below illustrates how the viscosity of oil changes with temperature.

Effect of Temperature on Viscosity




Under which situation will the viscosity of the oil increase?

(1) as temperature decreases
(2) when mixed with water
(3) as its volume decreases
(4) as its flow increases
(5) if its resistance stabilizes

**Answer: 1**

The viscosity of a liquid—its internal resistance to flow—is closely related to its temperature. As a liquid's temperature decreases, and it gets colder, the viscosity of that liquid will increase. Only alternative (1) mentions temperature as a factor.

## Hints for Science

- Read the questions carefully, not only for what is stated explicitly, but also for what may be implied or assumed. Sometimes, written text and diagrams have unstated assumptions about what you already know.
- Make sure to read all titles, keys, labels, etc., on diagrams, maps, graphs, and tables. They often contain information about the main idea.
- Make sure you understand the scales of a graph because some graphs show relationships—not specific amounts.
- Bar graphs are often used to compare amounts.

## LANGUAGE ARTS, READING

The *Language Arts, Reading Test* contains 40 multiple-choice questions that measure your ability to comprehend and interpret workplace and academic reading selections and to apply those interpretations to new contexts. The questions ask you to understand, apply, analyze, and synthesize information that you are given in the reading selections.

Literary texts constitute 75% of each test and include at least one selection from each of the following areas:

- Poetry
- Drama
- Prose fiction before 1920
- Prose fiction between 1920 and 1960
- Prose fiction after 1960

Nonfiction texts constitute 25% of each test and include two selections of nonfiction prose from any two of the following areas:

- Nonfiction prose
- Critical review of visual and performing arts
- Workplace and community documents, such as mission and goal statements, rules for employee behavior, legal documents, and communications (for example, letters and excerpts from manuals)

The reading selections in the *Language Arts, Reading Test* range from 200 to 400 words, with poetry running from 8 to 25 lines. A purpose question appears in bold before each selection; the question is designed solely to help you focus and provide a purpose for reading the text. You are not asked to answer the purpose question. Each selection is followed by four to eight questions.

### SAMPLE QUESTIONS

Directions: Choose the one best answer to each question.

Questions 1 through 8 refer to the following document.

**How Shall Employees Conduct Themselves?**

**Guidelines for Conducting Business with Those outside Our Company**

Our employees are the most effective advertisement of our values, beliefs, and abilities. Always keep in mind that when you are acting in your capacity as our employee, you are contributing materially to the public image and the ultimate success of this company.

**Gifts for Influence**

No payment or gift of money, goods, or services should be given or received to influence government or business decisions. Accurate and complete records for all accounts will be strictly monitored for everyone's protection.

If it becomes apparent to you in the course of the performance of your business responsibilities that a payment of some kind is expected by your business associate, please contact your division president.

**Conflict of Interest**

A conflict of interest can be described as a situation where a person has a vested interest in two areas of the business world that may give him or her an unfair advantage in business dealings. Our employees should be sensitive to any relationship that creates such a relationship—or even creates the appearance of such a relationship.

**Keep these rules in mind:**

- Throughout your employment period, be vigilant about potential conflicts of interest between this company's interests and your personal or immediate family's interests.
- Don't use your position with this company to obtain a personal benefit of any kind.
- Avoid any action or relationship that creates, or even creates the appearance of, a conflict of interest. For example, having an interest in a nonpublic company that competes or does business with our company or any of its affiliates might create the appearance of a conflict of interest and might prompt accusations and/or an investigation.

**Disclosure**

This company respects your privacy, as well as your right to conduct your personal affairs without interference; however, you must make prompt, complete, and continuing disclosure of all facts relating to any factual or potential conflict of interest.

**Investigations**

Inquiries or investigations may be undertaken at this company's direction by its attorneys, investigators, internal auditors, or independent public accountants. Employees should regard this vigilance as the company's commitment not only to fair competition but also to the protection of its employees. Your cooperation is needed for your protection as well as that of this company, and it is a condition of your employment.

*This excerpt is a composite of information from several business documents.*

**1** Based on the information in this excerpt, what would be the company's policy about accepting gifts or entertainment from people representing your competitors?

Accepting gifts or entertainment from people representing competitors would be considered

(1) dangerous
(2) practical
(3) reasonable
(4) unacceptable
(5) good business

**Answer: 4**

The clear statement in this section of the excerpt—"Gifts for Influence"—is that this kind of business dealing is unacceptable to this company.

**2** Based on the information in this excerpt, when is it permissible to give money that might be considered a bribe or a tip to a government official in order to facilitate business?

(1) It is never permissible to give a gift or other payment to influence government or business decisions.
(2) It may be necessary in certain foreign countries where it is expected.
(3) Payments to government officials can be made at any time with prior approval of the division president.
(4) Modest gratuities can be offered at any time.
(5) All payments or gratuities must be worth their fair trade value.

**Answer: 1**

This level of comprehension question is slightly more difficult than the previous question because the answer is implied but not stated. Alternatives (2) and (3) are distractors requiring that you read the passage with accuracy and precision.

**3** What is the meaning of the phrase "or even creates the appearance of" (lines 14-15)?

(1) an actual conflict of interest
(2) a conflict between the company's interests and your personal or immediate family's interest
(3) a situation that is not truly a conflict of interest but may appear to be
(4) the company's high standards for employee personal appearance and behavior
(5) a situation that is within your personal affairs

**Answer: 3**

This analysis question requires you to closely read a specific line in the text integrated with the context.

**4** What is an example of a conflict of interest?

(1) Your cousin works for the same company.
(2) You have given gratuities to foreign government officials.
(3) You often meet with the employee's union representative.
(4) You have cheated on your income tax.
(5) Your spouse owns stock in one of the company's competitors.

**Answer: 5**

This question requires you to analyze the rules about conflict of interest to conclude that alternative (5) would be an example of this issue.

**5** While this excerpt is discussing a very serious topic, it tries to maintain a feeling of sincere interest in the employee.

Which of the statements below most clearly reflects that feeling?

(1) "No payment or gift of money, goods, or services should be given or received to influence government or business decisions" (lines 6-7).
(2) ". . . records for all accounts will be strictly monitored . . ." (lines 7–8).
(3) "Don't use your position with this company to obtain a personal benefit of any kind" (line 19).
(4) "This company respects your privacy, as well as your right to conduct your personal affairs without interference" (lines 25-26).
(5) "Your cooperation . . . is a condition of your employment" (lines 32-33).

**Answer: 4**

With the exception of alternative (4), all of the other alternatives use a similar instructional tone as in most of the excerpt. Alternative (4) is the only example of the milder language that appears occasionally in the excerpt to soften the strong tone.

**6** How is this excerpt organized?

(1) statements of fact supported by personal stories
(2) specific topics followed by explanations
(3) rules for behavior supported by warnings of consequences
(4) general policy statement without specific performance standards
(5) debate of public versus personal philosophies

**Answer: 2**

The strongest distractor for this question is alternative (3) because it references "rules for behavior," which is an attractive choice. However, the excerpt does not contain any warnings or consequences, which the second half of this distractor mentions.

**7** Earlier in this document, the company describes how employees of this company are to behave toward each other. It includes a statement about complete and enforced intolerance for discrimination in any form.

Based on this information and the information in this excerpt, why might a potential employee want to read all this company's rules and regulations for employee behavior carefully?

(1) One mistake with this company could cost an employee his or her job.
(2) Competitors have several options for securing their rights.
(3) Employees and their managers must interact carefully.
(4) Unfair labor practices will not be tolerated.
(5) This company has high expectations for employee behavior.

**Answer: 5**

This is another example of a synthesis question. As described in Question 7, the stem of the question gives an additional piece of information that you must consider with the information from the passage. In this case, the new information covers a completely different area of employee behavior. The conclusion must be drawn that the company is very strict about employee behavior in at least these two discrete areas. The clear implication is that employees are probably held to high expectations in all areas, and a prudent prospective employee might want to be forearmed with this information.

**8** If you were running this company and you wanted to hire someone to enforce these rules, what primary characteristic would you want in this potential employee?

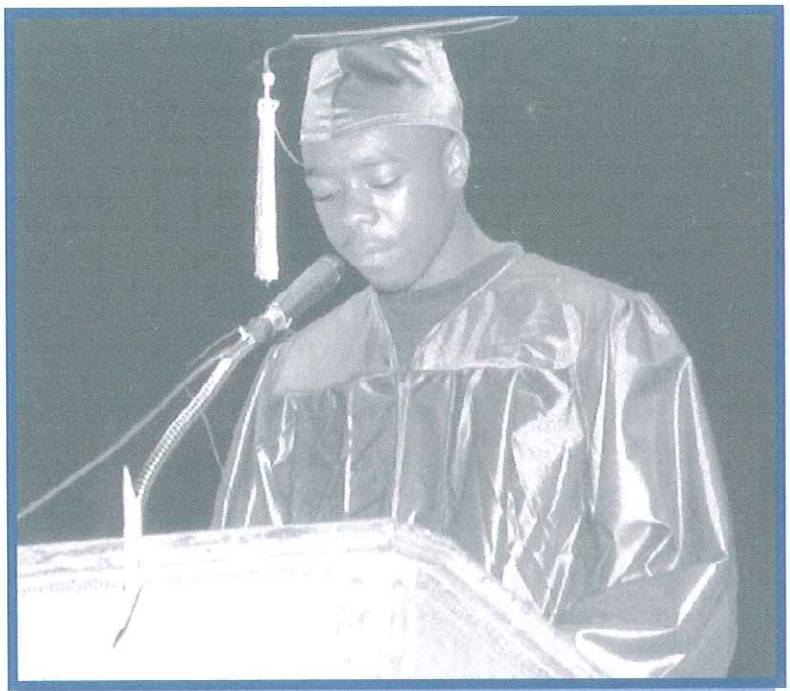
(1) knowledge about the company's product
(2) honesty and integrity
(3) communication skills
(4) human relations skills
(5) familiarity with your employee

**Answer: 2**

The stem for this question casts the excerpt in a completely new light. Now you must consider the rules from the point of view of the owner who wishes to enforce them, rather than the employee who wishes to obey them. Furthermore, the employer wants to identify a person to enforce the rules and is considering the characteristics that person must possess.

## Hints for Language Arts, Reading

- Before you read the selection, look at the purpose question, which is printed in bold, so that you will have a focus and purpose in mind as you start reading.
- Some test-takers benefit from glancing at the test questions before starting to read the text; others prefer to read the selection first. You should try both methods to see which works best for you.
- Read the selection before you start answering the questions. Most of the questions demand an overall understanding of the text even when a very specific question is asked.
- If you come to a word you don't know, use the meaning of the whole sentence to guess at the meaning of the word.
- Pay attention not only to the actual excerpts themselves, but also to any explanatory notes, which are set off in square brackets. In excerpts from plays, the stage directions are printed in italics; make sure to pay attention to these sections in addition to the dialogue because the stage directions often contain important information about the setting and characters' actions and emotions.
- Some questions refer to line numbers in the text. When answering these questions, make sure to go back to the passage to reread those words in their correct context. Do not rely solely on your memory!
- Make sure to select the answer that best and most completely answers the question. Do not select a choice just because it is a true statement.
- The excerpts and questions are arranged in order from easiest to hardest.



## MATHEMATICS

The *Mathematics Test* is divided into two equally weighted parts, each containing 25 questions. On Part I of the test, you may use the *Casio fx-260* calculator to compute answers. A calculator will be provided for your use at the official GED Testing Center. Because estimation and mental math are critical skills, you are not permitted to use the calculator on Part II of the test. (See page 14 for calculator directions.) A math formulas page is provided for your reference during the test. (In addition, see page 14.)

The *Mathematics Test* assesses your understanding of mathematical concepts and the application of those concepts to various real-world situations. The following four major areas are tested on the *Mathematics Test*:

- Number operations and number sense (20%–30%)
- Measurement and geometry (20%–30%)
- Data analysis, statistics, and probability (20%–30%)
- Algebra, functions, and patterns (20%–30%)

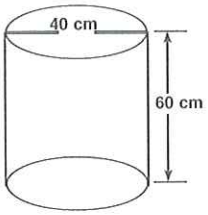
**Alternate-format questions**

Although 80% of the mathematics questions are multiple choice, 20% of the questions require you to construct your own answer. Rather than select from five choices, you must record answers on either standard or coordinate plane grids. Both Parts I and II of the *Mathematics Test* have multiple-choice, standard grid, and coordinate plane grid questions. (See page 14 for directions for standard grid and coordinate plane grid.)

### SAMPLE QUESTIONS

Directions: Choose the one best answer to each question.

**1** A painter mixes gallons of paint in a large cylindrical bucket so that there will be no difference in color among individual gallons.




If one gallon of paint has a volume of approximately 8000 $cm^3$, what is the maximum number of whole gallons of paint that can be poured into the bucket?

(1) 3
(2) 7
(3) 9
(4) 11
(5) 37

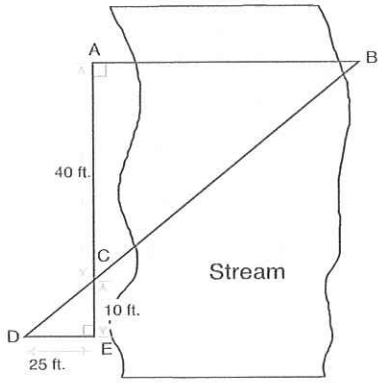
**Answer: 3**

The Math formulas page will be helpful for this question. You must use the appropriate formula for the volume of a cylinder and recognize that its radius is half of the diameter shown. Once the volume is computed, that answer is divided by 8000. Since only whole gallons are to be poured into the bucket, the quotient is rounded **DOWN**. The concept of rounding up or down (as appropriate to a particular situation) to produce a whole-number answer is an important one for you to understand.

*Volume of bucket:* $(3.14) \times (20)^2 \times (60) = 75{,}360 cm^3$
$75{,}360 \div 8000 = 9.42$ *gallons*

*Answer is rounded* **DOWN** *because 10 whole gallons would not fit. Final answer: 9 gallons*

**2** A surveyor made the measurements shown in the diagram below.




What is the measure, in feet, of AB, the straight-line distance across the stream?

(1) 50
(2) 75
(3) 80
(4) 100
(5) 150

**Answer: 4**

*You must recognize similar triangles in the diagram and set up the correct proportion, which could be expressed as:* $\frac{AC}{EC} = \frac{AB}{ED}$.

*Letting AB be represented by* $\times$ *and substituting the other measures from the diagram, the proportion is then solved for the unknown measure.*

$\frac{AC}{EC} = \frac{AB}{ED}$ *becomes* $\frac{40}{10} = \frac{\times}{25}$

*Cross-multiplying:* $10\times = 1000$
*Dividing by 10:* $\times = 100$
*The final answer is 100 feet.*

**3** Shane is working with a spreadsheet on his computer. The spreadsheet will calculate the cost of the wood trim around rectangular windows based on the dimensions of the window and the price of the wood. The following entries have been made.

| Length of window in feet | Width of window in feet | Price per foot of wood trim | Cost of trim for window |
|---|---|---|---|
| A7 | B7 | C7 | |

Shane wants to enter a formula in the last column so that the spreadsheet will calculate the final cost of the job.

Which of the following formulas should he enter?

(1) A7 × B7 × C7
(2) (2 × A7 + 2 × B7) × C7
(3) A7 + B7 + C7
(4) (A7 + B7) × C7
(5) A7 × B7 + C7

**Answer: 2**

You must recognize that the perimeter of the rectangle must be found and multiplied by the cost per foot of the trim used. The cell locations become the variables in the formula.

*(perimeter of rectangular window) times (price per foot of wood trim)*
*(2 × length + 2 × width) × price per foot*
*(2 × A7 + 2 × B7) × C7*

*Note: The following question is a specific example of questions likely to be found on the Mathematics Test, Part I, which allows the use of a calculator.*

**4** Last month, the balance in Tisha's checkbook was $1219.17. Since then she has deposited her latest paycheck of $2425.66 and written checks for $850.00 (rent), $235.89 (car payment), and $418.37 (credit card payment).

What is the current balance in Tisha's checking account?

(1) $ 921.40
(2) $2140.57
(3) $3215.27
(4) $3929.92
(5) $5149.09

**Answer: 2**

The paycheck would be added to the existing balance, and the checks written would be subtracted. The realistic amounts in the question would require considerable time for the arithmetic to be done by hand, but the values can be entered into the calculator in one continuous string as they are presented in the expression.

*New balance = Old balance + Paycheck deposited – Checks written*
*New balance = 1219.17 + 2425.66 – 850.00 – 235.89 – 418.37*
*New balance = $2140.57*

**5** Byron purchased a $5000 certificate of deposit (CD) at his local bank. The CD will pay him 7% simple interest at the end of 2 years.

How much **INTEREST**, in dollars, will Byron have earned from his CD at the end of the 2-year period?

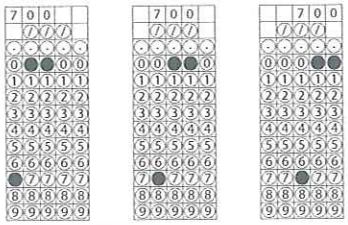
Mark your answer in the circles in the grid on your answer sheet.

**Answer: 700**

The formula for simple interest is found on the formulas page in the front of the Mathematics Test.

simple interest = principal × rate × time
simple interest = $5000 × 0.07 × 2
simple interest = $700

Alternate-format responses can be right-, left-, or center-justified, as shown in the examples below.



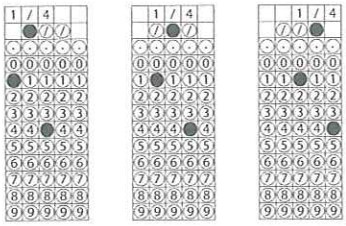
**6** One ingredient in the sauce Kyle is preparing for tonight's dinner is a $\frac{1}{2}$ teaspoon of red pepper. If the recipe he is using is designed to make enough sauce for 8 servings, but Kyle is making only 4 servings, what fraction of a teaspoon of red pepper should he use?

Mark your answer in the circles in the grid on your answer sheet.

**Answer: $\frac{1}{4}$, 0.25, or .25**

Since Kyle is serving four from a recipe designed for eight, he needs $\frac{4}{8}$, or $\frac{1}{2}$, the amount of each ingredient. One half of $\frac{1}{2}$ teaspoon is found by multiplying:
$(\frac{1}{2}) \times (\frac{1}{2}) = \frac{1}{4}$

This answer could also be gridded using the decimal equivalent of $\frac{1}{4}$, namely 0.25, or .25 but, in this example, the fraction is gridded to illustrate the use of the fraction bar.



*Note: In the last two examples, a decimal answer and a fraction were gridded. Mixed numbers, such as $3\frac{1}{2}$, CANNOT be gridded. They must be changed to decimal or fraction form. In the case of $3\frac{1}{2}$, the answer could be gridded as 3.5 or $\frac{7}{2}$.*

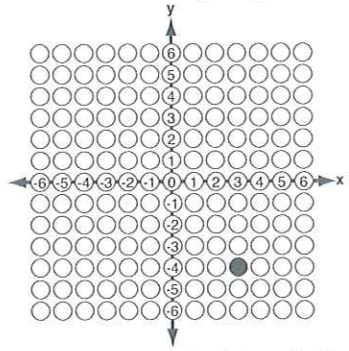
Answers for alternate-format questions using the standard grid shown in the previous two examples will NEVER be a negative number, such as –8, since the grid does not accommodate negative numbers.

Both of the points mentioned above are included in the directions for alternate-format questions found on the actual test.

**7** Show the location of the point whose coordinates are (3, -4).

Mark your answer on the coordinate plane grid on your answer sheet.

**Answer: See coordinate plane grid**




*The coordinates in the ordered pair are listed with the x-coordinate (horizontal) first and the y-coordinate (vertical) second. The point (3, – 4) is located in the lower-right, or fourth, quadrant of the graph.*

## Hints for Mathematics

- The *Mathematics Test* is in two booklets. Each part has 25 questions. The total time for taking the *Mathematics Test* is 90 minutes.
- For Part I, a calculator (the *Casio fx-260*) will be provided for your use. However, you are not required to use it. If you plan to use the calculator, become familiar with its operations before you take the test. Basic directions for the calculator are provided here (page 14) and on the actual test.
- Ten questions (seven on Part I and three on Part II) on the *Mathematics Test* are not multiple choice. These are not the most difficult questions on the test. You should become familiar with the methods of recording your answers for these alternate-format questions (standard grid and coordinate plane grid).
- On the coordinate plane grid, make sure that you fill in only one circle to represent your answer. If you fill in more than one circle on the graph, your response will be marked as incorrect.
- You will be provided with a page of formulas at the front of the *Mathematics Test* booklets. Those formulas are also printed here (page 14) for your convenience. Become familiar with what is included on this page in advance of the test so that you will be able to find information more quickly during the test. You do not have to memorize the formulas.
- Some questions will provide you with more information than you need to answer them correctly. Use only the data that are relevant to the particular question.
- Some multiple-choice questions may not contain enough information to answer the question. In that case, the correct response is "Not enough information is given."
- When you obtain an answer, take a moment to determine whether your answer makes sense given the parameters of the problem. For example, if your calculation indicates that a 1-pound bag of carrots will cost $25, you should check your work for errors because $25 is not a reasonable price for this item.
- Use your personal experience to solve the problems. The settings used for the problems in the *Mathematics Test* are usually realistic. For example, in a test question that requires you to compute weekly earnings, ask yourself, "How would I calculate my weekly earnings?"
- In diagrams, do not assume that lines are parallel or perpendicular unless the problem gives you that information in either words or symbols. This rule is true even when the lines look parallel or perpendicular.

## Math Formulas

2 Mathematics

### FORMULAS

| | | |
|---|---|---|
| **AREA** of a: | | |
| | square | Area = side$^2$ |
| | rectangle | Area = length × width |
| | parallelogram | Area = base × height |
| | triangle | Area = $\frac{1}{2}$ × base × height |
| | trapezoid | Area = $\frac{1}{2}$ × (base$_1$ + base$_2$) × height |
| | circle | Area = $\pi$ × radius$^2$; $\pi$ is approximately equal to 3.14. |
| **PERIMETER** of a: | | |
| | square | Perimeter = 4 × side |
| | rectangle | Perimeter = 2 × length + 2 × width |
| | triangle | Perimeter = side$_1$ + side$_2$ + side$_3$ |
| **CIRCUMFERENCE** of a circle | | Circumference = $\pi$ × diameter; $\pi$ is approximately equal to 3.14. |
| **VOLUME** of a: | | |
| | cube | Volume = edge$^3$ |
| | rectangular solid | Volume = length × width × height |
| | square pyramid | Volume = $\frac{1}{3}$ × (base edge)$^2$ × height |
| | cylinder | Volume = $\pi$ × radius$^2$ × height; $\pi$ is approximately equal to 3.14. |
| | cone | Volume = $\frac{1}{3}$ × $\pi$ × radius$^2$ × height; $\pi$ is approximately equal to 3.14. |
| **COORDINATE GEOMETRY** | | distance between points = $\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$; $(x_1, y_1)$ and $(x_2, y_2)$ are two points in a plane.<br>slope of a line = $\frac{y_2-y_1}{x_2-x_1}$; $(x_1, y_1)$ and $(x_2, y_2)$ are two points on the line. |
| **PYTHAGOREAN RELATIONSHIP** | | $a^2 + b^2 = c^2$; $a$ and $b$ are legs and $c$ the hypotenuse of a right triangle. |
| **MEASURES OF CENTRAL TENDENCY** | | mean = $\frac{x_1+x_2+\ldots+x_n}{n}$, where the $x$'s are the values for which a mean is desired, and $n$ is the total number of values for $x$.<br>**median** = the middle value of an odd number of *ordered* scores, and halfway between the two middle values of an even number of *ordered* scores. |
| **SIMPLE INTEREST** | | interest = principal × rate × time |
| **DISTANCE** | | distance = rate × time |
| **TOTAL COST** | | total cost = (number of units) × (price per unit) |

## Calculator Directions for *Casio fx-260*

**CALCULATOR DIRECTIONS**

To prepare the calculator for use the ***first*** time, press the [ ON ] (upper-rightmost) key. "DEG" will appear at the top-center of the screen and "0." at the right. This indicates the calculator is in the proper format for all your calculations.

To prepare the calculator for ***another*** question, press the [ ON ] or the red [ AC ] key. This clears any entries made previously.

To do any arithmetic, enter the expression as it is written. Press [ = ] (equals sign) when finished.

**EXAMPLE A:** 8 – 3 + 9

First press [ ON ] or [ AC ].
Enter the following:
[ 8 ] [ – ] [ 3 ] [ + ] [ 9 ] [ = ]
The correct answer is 14.

If an expression in parentheses is to be multiplied by a number, press [ x ] (multiplication sign) between the number and the parenthesis sign.

**EXAMPLE B:** 6(8 +5)

First press [ ON ] or [ AC ].
Enter the following:
[ 6 ] [ x ] [ ( ] [ 8 ] [ + ] [ 5 ] [ ) ] [ = ]
The correct answer is 78.

To find the square root of a number
- enter the number;
- press the [ SHIFT ] (upper-leftmost) key ("SHIFT" appears at top-left of the screen);
- press [ x² ] (third from the left on top row) to access its second function: square root.

**DO NOT** press [ SHIFT ] and [ x² ] at the same time.

**EXAMPLE C:** $\sqrt{64}$

First press [ ON ] or [ AC ].
Enter the following:
[ 6 ] [ 4 ] [ SHIFT ] [ x² ] [ = ]
The correct answer is 8.

To enter a negative number such as -8
- enter the number without the negative sign (enter 8);
- press the "change sign" ( [ +/- ] ) key which is directly above the [ 7 ] key.

All arithmetic can be done with positive and/or negative numbers.

**EXAMPLE D:** -8 – -5

First press [ ON ] or [ AC ].
Enter the following:
[ 8 ] [ +/- ] [ – ] [ 5 ] [ +/- ] [ = ]
The correct answer is -3.

# ALTERNATE-FORMAT DIRECTIONS

## Standard Grid

Mathematics

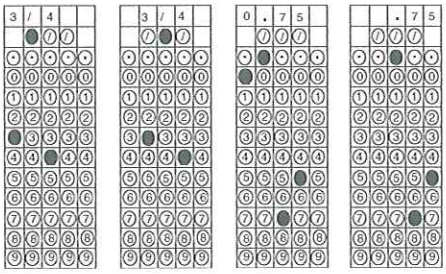
Mixed numbers, such as $3\frac{1}{2}$, cannot be entered in the alternate format grid. Instead, represent them as decimal numbers (in this case, 3.5) or fractions (in this case, 7/2). No answer can be a negative number, such as -8.

To record your answer for an alternate format question
- begin in any column that will allow your answer to be entered;
- write your answer in the boxes on the top row;
- in the column beneath a fraction bar or decimal point (if any) and each number in your answer, fill in the bubble representing that character;
- leave blank any unused column.

**EXAMPLE:**

The scale on a map indicates that 1/2 inch represents an actual distance of 120 miles. In inches, how far apart on the map will two towns be if the actual distance between them is 180 miles?

The answer to the above example is 3/4, or 0.75, inches. A few examples of how the answer could be gridded are shown below.



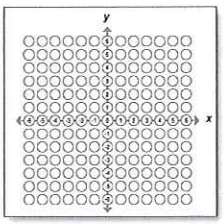

Points to remember:

- The answer sheet will be machine scored. **The circles must be filled in correctly.**
- Mark no more than one circle in any column.
- Grid only one answer even if there is more than one correct answer.
- Mixed numbers such as $3\frac{1}{2}$ must be gridded as 3.5 or 7/2.
- No answer can be a negative number.

## Coordinate Plane Grid

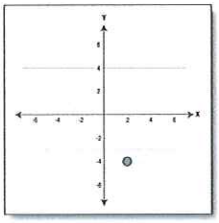
**Mathematics Test**
**Coordinate Plane Grid**

- To record an answer on the coordinate plane grid, you must have an "x" value and a "y" value.
- No answer for a coordinate plane question will have a value that is a fraction or a decimal.
- Mark only the ***one*** circle that represents your answer.




**EXAMPLE**

The coordinates of point A, shown on the graph below, are (2,-4).

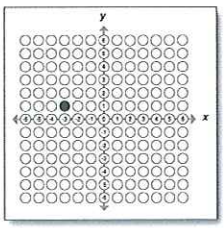



The coordinates of point B, not shown on the graph, are (-3,1). What is the location of point B?

**DO NOT MARK YOUR ANSWER ON THE GRAPH ABOVE.**

Mark your answer on the coordinate plane grid on your answer sheet.

**CORRECT RESPONSE**



# INTERPRETING GED TEST RESULTS

The sample *Official Transcript of GED Tests Results* below reports sample scores for a GED test-taker.

Your performance on each of the five GED Tests is reported in two ways: as "standard scores," ranging from 200 to 800, and "percentile ranks," ranging from 1 to 99. Both scores compare your results to scores earned by a recent representative national sample of high school seniors. Approximately 68% of all graduating seniors score between 400 and 600 on the standard score scale. Only 2% of graduating seniors score lower than 300 or higher than 700.

The **standard score** column shows the score you earned on each test. The passing standard for the test battery (all tests combined) is **2250** total, with a minimum of **410** earned on each of the content-area tests. A jurisdiction/state may set a passing standard that exceeds this.

The **percentile rank** column shows the percentage of graduating seniors who earned scores at or below your test scores. For example, this test-taker scored better than 97% of graduating high school seniors on the *Mathematics Test*.

## GED Official Transcript of GED Tests Results

Issued by
OFFICIAL GED TESTING CENTERS
of the
General Educational Development Testing Service of the American Council on Education
*(For additional transcripts, contact the center below.)*

Candidate's Name

Last: JONES First: THOMAS Middle Initial: D

Address: 765 Maple Lane
Gary, IN 46212
Phone Number: 315-555-7905
Date of Birth: 03/26/66 Social Security Number(if required): 734-21-9641

Issue Date: 02/25/2002

Test Format: EP

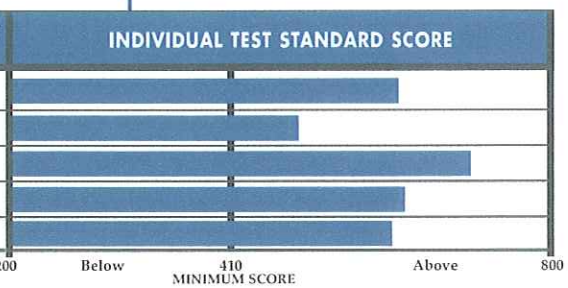
Reported to: GED Administrator
Division of Adult Education, IN Dept. of Education
State House
Indianapolis, IN 46204

Examiner's Signature _____ Date _____
Center Name: Center Community College
Center Identification No.: 3000174208
Phone Number: 315-555-9475
Center Address: 321 Union Street
Gary, IN 46211

| | TEST DATE | TEST FORM | **STANDARD SCORE | PERCENTILE RANK |
|---|---|---|---|---|
| Language Arts, Reading | 01/17/2002 | IZ | 580 | 79 |
| Language Arts, Writing | 01/17/2002 | IZ | 430 | 28 |
| Mathematics | 01/17/2002 | IZ | 690 | 97 |
| Science | 01/17/2002 | IZ | 590 | 81 |
| Social Studies | 01/17/2002 | IZ | 570 | 76 |
| Standard Score Total | | | 2860 | |
| Battery Average | | | 572 | |

| *PASS | *NON-PASS |
|---|---|
| | |
| X | |

INDIVIDUAL TEST STANDARD SCORE




** Standard Score. The scores on this report are the *highest* scores achieved by the candidate and not necessarily the most recent. If retest scores are lower than scores previously achieved, the retest scores are not reported.

*Pass or Non-Pass as determined by jurisdictional policy.

**TOTAL BATTERY**

You have demonstrated the 21st century skills of
- Communication
- Information Processing
- Problem Solving
- Higher Order Thinking

in the five test areas (Reading, Writing, Mathematics, Science, and Social Studies) to perform as effectively in the workplace or in higher education as the top 20% of traditional high school graduates.

**Language Arts, Reading**

Your score meets or exceeds the GED passing score requirement. You demonstrated essential reading skills in the following areas: comprehending, analyzing, evaluating, and synthesizing workplace and literary texts.

**Language Arts, Writing**

Your score meets or exceeds the GED passing score requirement. You demonstrated essential skills in the following areas: using the elements of standard English to edit workplace and informational documents and to generate well-organized and developed written text.

**Mathematics**

Your score exceeds the GED passing score requirement and the scores of 80% of graduating seniors. You demonstrated superior skill in the following areas: understanding and interpreting mathematical concepts in algebra, data analysis, statistics, geometry, and number operations applied to visual and written text from academic and workplace contexts.

**Science**

Your score meets or exceeds the GED passing score requirement. You demonstrated essential skills in the following areas: understanding, interpreting, and applying concepts of life, earth and space sciences, physics, and chemistry to visual and written text from academic and workplace contexts.

**Social Studies**

Your score meets or exceeds the GED passing score requirement. You demonstrated essential skills in the following areas: understanding, interpreting, and applying key history, geography, economics, and civics concepts and principles to visual and written text from academic and workplace contexts.

**Standard Score Total** — In this example, 2860 is the sum of all the standard scores from all the tests.

If your scores do not meet the required passing standard, the "NON-PASS" box is marked.** If you have not taken all five tests, "INC" (incomplete) appears.

**If you do not pass, you can retake the GED Tests in order to raise your scores. The local GED Examiner can provide information about retesting. If you earn a standard score of 350 or lower, GED Testing Service generally recommends further study in those subject areas. You may also consider contacting local adult education programs for information about instructional classes.

Adults who pass the GED Tests earn scores that meet or exceed the performance of that demonstrated by 40% of graduating high school seniors. If your scores meet or exceed the required passing score, the "PASS" box is marked.

# GED INFORMATION BULLETIN

## GENERAL HINTS

### Preparing for the Tests

- Make sure you know in advance the best way to get to the official GED Testing Center on time on the day of the test.
- Eat a good meal and get a good night's sleep before your test day.
- Plan to arrive at the testing center about 20 minutes early to allow for any last-minute changes or delays.
- Make sure that you have the following essential items with you on the day of the test:
  - admission ticket (if necessary)
  - photo identification (driver's license, government identification card, or other materials that include a photograph, your birth date, and place of residence)
  - some sharpened No. 2 pencils with erasers and a blue- or black-ink pen (for the *Language Arts, Writing* essay)
  - a watch (if possible)
- During the test, you will NOT be able to keep the following items at your seat. (You will, however, be able to store them at a specified area within viewing distance.)
  - purses or tote bags
  - pagers or cell phones
  - portable music players
  - hand-held electronic games
  - food items
  - textbooks (including dictionaries)
  - notebooks or supplies
  - jackets, coats, or hats
  - other nonessential items
- Find out how many and which tests you are scheduled to take. Ask the time that your testing session will end. Make sure you have transportation available.

### Taking the Tests

- Read all directions and questions carefully and completely to ensure that you understand exactly what you are expected to do to answer each question. In addition, listen very carefully to the directions that the GED Examiner gives you.
- Pick the single best answer. All multiple-choice questions have five answer choices. There are no "trick" questions. Eliminate the answer choices that you know are wrong and choose the best remaining answer.
- Follow the test directions for filling in the answer sheet. Mark only one answer space for each question; multiple answers will be scored as incorrect.
- Answer every question. If you get stuck on a question, move on. Complete the rest of the test and then come back to the questions you skipped. Even if you are unsure, mark an answer choice for every question because you will not be penalized for wrong answers.
- Always be aware of the time limit and time remaining for the particular test that you are taking. Each of the GED Tests has a different time limit. When the test begins, notice when the GED Examiner writes down the time that you must be finished and then carefully allocate the minutes as you work through the questions.
- When answering questions, remember that your first answer is usually your best. Don't change your first answer unless you are sure it is wrong. If you erase, make sure that you have erased your first answer completely.

### *HOW DO I FIND OUT MORE ABOUT THE GED TESTS?*

Call **1-800-62-MYGED (1-800-626-9433)** to find your local official GED Testing Center or visit www.GEDtest.org. The places can help you answer these and other questions:

- Am I eligible to take the GED Tests?
- Where can I find the *Official GED Practice Tests*?
- Where can I find a GED instructional program?
- How much does it cost to take the GED Tests?
- When are the GED Tests given?
- What score do I need to pass the GED Tests?

[This document has been reviewed by the Federal Consumer Information Center.]
50K/03/08R Tasco Item No. 251538
Additional copies of this GED Information Bulletin are available in quantities of up to 500 per order from the GED Fulfillment Service, Department 191, Washington, DC 20055-0191; telephone (301) 632-6757, fax (301) 843-0159. A shipping and handling charge of $12.95 will apply to all orders.