GED Tests of General Educational Development

Mathematics
Official GED Practice Test
Calculator Use Not Allowed

GED Testing Service
American Council on Education
Dear Student,

Congratulations on deciding to earn your high school credential!

Why should you take the GED Practice Tests? Because they are similar in content, difficulty, and format to the actual GED Tests. These Practice Tests will provide you with a solid introduction to the types of topics and questions you can expect to find on the GED Tests. They will also help you practice your test-taking skills under simulated test conditions. (Note that the Practice Tests are only half as long as the actual tests.) Additionally, the scores you earn on the Practice Tests will help you estimate your scores on the actual GED Tests. With all this practice, by the time you walk into the actual test center, you'll feel confident and prepared to do your best!

Here are a few tips to help you do well on both the Practice and GED Tests:

- Read all directions and questions carefully and completely.

- Pick the single best answer. All multiple-choice questions have five answer choices. There are no "trick" questions. Some questions in the math sections ask you to grid in your own numerical solution to a problem; in these cases, you will not have multiple-choice options.

- 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. Eliminate the answer choices that you know are wrong and pick the best remaining answer. Even if you are unsure, mark an answer choice for every question because you will not be penalized for wrong answers.

The Practice Test is a good predictor of your success on the actual GED Tests. Use the guidelines below and consult with your teacher or tutor to help you determine your readiness to take the tests.

- If your Practice Test scores are much higher than those required to pass the tests, you are probably ready to take the actual GED Tests.

- If your Practice Test scores are about the same as the required scores, consider studying more before taking the actual GED Tests.

- If your Practice Test scores are significantly lower than the required scores, we encourage you to attend class, work with a tutor, or study GED books before taking the actual GED Tests.

We wish you much success as you work to earn your high school credential and accomplish your other educational, professional, and personal goals. Good luck!

Sincerely,
Joan C. Auchter, Executive Director
GED Testing Service Staff
### FORMULAS

<table>
<thead>
<tr>
<th>AREA of a:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>square</strong></td>
<td>Area = side²</td>
</tr>
<tr>
<td><strong>rectangle</strong></td>
<td>Area = length × width</td>
</tr>
<tr>
<td><strong>parallelogram</strong></td>
<td>Area = base × height</td>
</tr>
<tr>
<td><strong>triangle</strong></td>
<td>Area = ½ × base × height</td>
</tr>
<tr>
<td><strong>trapezoid</strong></td>
<td>Area = ½ × (base₁ + base₂) × height</td>
</tr>
<tr>
<td><strong>circle</strong></td>
<td>Area = π × radius²; π is approximately equal to 3.14.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIMETER of a:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>square</strong></td>
<td>Perimeter = 4 × side</td>
</tr>
<tr>
<td><strong>rectangle</strong></td>
<td>Perimeter = 2 × length + 2 × width</td>
</tr>
<tr>
<td><strong>triangle</strong></td>
<td>Perimeter = side₁ + side₂ + side₃</td>
</tr>
</tbody>
</table>

| CIRCUMFERENCE of a circle | Circumference = π × diameter; π is approximately equal to 3.14. |

<table>
<thead>
<tr>
<th>VOLUME of a:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>cube</strong></td>
<td>Volume = edge³</td>
</tr>
<tr>
<td><strong>rectangular solid</strong></td>
<td>Volume = length × width × height</td>
</tr>
<tr>
<td><strong>square pyramid</strong></td>
<td>Volume = ½ × (base edge)² × height</td>
</tr>
<tr>
<td><strong>cylinder</strong></td>
<td>Volume = π × radius² × height; π is approximately equal to 3.14.</td>
</tr>
</tbody>
</table>

| cone                  | Volume = ½ × π × radius² × height; π 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. |
|-----------------------|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 \( x \). |
|------------------------------| 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 = rate × time |
| TOTAL COST                   | total cost = (number of units) × (price per unit) |
Directions: You will have 22 minutes to complete questions 14–25. You may NOT use a calculator with these questions. Choose the one best answer to each question.

Questions 14 and 15 refer to the following graph.

![Graph showing monthly profits of CarClub's sales]

The expected monthly profit (or loss) that the CarClub dealership makes as a function of the number of cars sold that month is shown in the graph above.

14. The CarClub dealership has set this month's profit goal at $30 000. Based on the expected profit shown in the graph, what is the minimum number of cars that must be sold in order to reach its goal?

(1) 10
(2) 20
(3) 30
(4) 40
(5) 50

15. What is the approximate monthly profit or loss (if negative) for the CarClub dealership if 15 cars were sold this month?

(1) a loss of $5 000
(2) a loss of $1 000
(3) a profit of $1 000
(4) a profit of $5 000
(5) a profit of $10 000
16. In the diagram below, the measure of angle DFB is 130°.

What is the value in degrees of \((p + q)\)?

(1) 50
(2) 100
(3) 130
(4) 180
(5) Not enough information is given.

17. Marcy wants to place a classified ad in a local newspaper to sell her car. The newspaper charges $6 for the first 20 words and 10 cents per word thereafter. What would she pay for an ad that contained 43 words?

(1) $ 4.30
(2) $ 6.30
(3) $ 8.30
(4) $ 8.60
(5) $ 10.30

18. The cost of Mariella's dinner totaled $24.00. She wants to leave a 15-percent tip for the server. In dollars, how much money should she leave as a tip?

PLEASE DO NOT WRITE IN THIS TEST BOOKLET.

Mark your answer in the circles in the grid on your answer sheet.
19. Elwood is assigned to record the temperature of a device at his electronics firm. During the test the temperature starts at 25° Celsius (C) then increases at a constant rate to 50° during the first 15 minutes. Once it reaches the 50° C mark it remains constant for half an hour. It then decreases to -25° C at the same rate at which it increased. Which of the following graphs best represents the correct temperature cycle?

![Graphs 1, 2, 3, 4, 5 showing temperature vs. time with options (1) 1000, (2) 2000, (3) 4000, (4) 9000, (5) 12000.]

20. After Stacy sees a lightning flash, it takes 8.34 seconds for her to hear the thunder. Knowing that sound travels at 1129 feet per second, which of the following would be the best estimate of the distance in feet between her location and the storm?

(1) 1000
(2) 2000
(3) 4000
(4) 9000
(5) 12000
21. A survey of salaries in Greensburg was published in the newspaper. The article included the graph below.

Average Annual Salary

<table>
<thead>
<tr>
<th>Age in Ranges</th>
<th>Salary in Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 18-25</td>
<td>20000</td>
</tr>
<tr>
<td>Age 26-45</td>
<td>55000</td>
</tr>
<tr>
<td>Age 46-65</td>
<td>45000</td>
</tr>
</tbody>
</table>

What is the approximate annual salary for men of ages 26 to 45?

(1) $52,000  
(2) $48,000  
(3) $45,000  
(4) $40,000  
(5) $30,000

22. Parts of the graphs of the linear functions $y_1 = \frac{1}{2}x + 3$ and $y_2 = -x - 3$ are shown on the coordinate plane grid below.

What is the point that is common to the graphs of both functions?

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

Mark your answer on the coordinate plane grid on your answer sheet.
23. Carla's frame shop determines the cost of framing a painting with the following formula.

\[ C = 15 + \frac{x^2}{10} \]

\( C \) is the cost (in dollars) for framing, and \( x \) is the **LARGEST** dimension (in inches) of the painting to be framed. If Simón has a painting that is 20 inches by 30 inches, what is the total amount he would pay Carla's shop to frame it?

(1) $ 19
(2) $ 24
(3) $ 55
(4) $105
(5) $915

24. A department store advertises a clearance sale that offers "Take an additional 40% off the sale price." A coat that was originally $75.00 is on sale for $50.00. What is the clearance price?

(1) $20.00
(2) $25.00
(3) $30.00
(4) $40.00
(5) $45.00

25. A salesclerk earns a weekly salary of $200 plus $2 for every book he sells. If he earns a total of $326 in one week, in which of the following equations does \( n \) represent the number of books he sold that week?

(1) \( 2n + 200 = 326 \)
(2) \( 2n + 200 + 2 = 326 \)
(3) \( n + 200 = 326 \)
(4) \( 2n = 326 \)
(5) \( 2n + 2 = 200 \)
MATHMATICS
Tests of General Educational Development

Directions

The Mathematics Test consists of multiple-choice questions intended to measure general mathematics skills and problem-solving ability. The questions are based on short readings that often include a graph, chart, or figure.

You will have 22 minutes to complete the 12 questions in this booklet. Work carefully, but do not spend too much time on any one question. Be sure you answer every question.

Formulas you may need are given on page 2. Only some of the questions will require you to use a formula. Not all the formulas given will be needed.

Some questions contain more information than you will need to solve the problem; other questions do not give enough information. If the question does not give enough information to solve the problem, the correct answer choice is "Not enough information is given."

The use of calculators is not allowed.

Do not write in this test booklet. The test administrator will give you blank paper for your calculations. Record your answers on the separate answer sheet provided. Be sure all information is properly recorded on the answer sheet.

To record your answers, fill in the numbered circle on the answer sheet that corresponds to the answer you select for each question in the test booklet.

FOR EXAMPLE:

If a grocery bill totaling $15.75 is paid with a $20.00 bill, how much change should be returned?

1) $5.25  2) $4.75  3) $4.25  4) $3.75  5) $3.25

(On Answer Sheet)

The correct answer is "$4.25"; therefore, answer space 3 would be marked on the answer sheet.

Do not rest the point of your pencil on the answer sheet while you are considering your answer. Make no stray or unnecessary marks. If you change an answer, erase your first mark completely. Mark only one answer space for each question; multiple answers will be scored as incorrect. Do not fold or crease your answer sheet. All test materials must be returned to the test administrator.

GO ON TO THE NEXT PAGE
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 grided 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.

DO NOT BEGIN TAKING THIS TEST UNTIL TOLD TO DO SO

Component: 9993949930