Mathematics
Official GED Practice Test
Calculator Use 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><strong>AREA</strong> of a:</th>
</tr>
</thead>
<tbody>
<tr>
<td>square</td>
</tr>
<tr>
<td>rectangle</td>
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<tr>
<td>parallelogram</td>
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<tr>
<td>triangle</td>
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<tr>
<td>trapezoid</td>
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<tr>
<td>circle</td>
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<tr>
<th><strong>PERIMETER</strong> of a:</th>
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<tbody>
<tr>
<td>square</td>
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<tr>
<td>rectangle</td>
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<tr>
<td>triangle</td>
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<table>
<thead>
<tr>
<th><strong>CIRCUMFERENCE</strong> of a circle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circumference (= \pi \times \text{diameter}; \pi \text{ is approximately equal to 3.14.})</td>
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</table>

<table>
<thead>
<tr>
<th><strong>VOLUME</strong> of a:</th>
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</thead>
<tbody>
<tr>
<td>cube</td>
</tr>
<tr>
<td>rectangular solid</td>
</tr>
<tr>
<td>square pyramid</td>
</tr>
<tr>
<td>cylinder</td>
</tr>
<tr>
<td>cone</td>
</tr>
</tbody>
</table>

**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 \(= \text{principal} \times \text{rate} \times \text{time}\)

**DISTANCE**

- Distance \(= \text{rate} \times \text{time}\)

**TOTAL COST**

- Total cost \(= \text{(number of units)} \times \text{(price per unit)}\)
Mathematics Part I

Directions: You will have 23 minutes to complete questions 1–13. You may use your calculator with these questions only. Choose the one best answer to each question.

1. Kelly’s goal is to average $25,000 per month in sales for the first three months of the year. Her sales for January and February are shown in the graph below.

   **Monthly Sales**

   ![Bar graph showing sales in thousands of dollars for January and February.]

   To reach her goal, what is the minimum amount of sales Kelly must make in March?

   (1) $15,000
   (2) $24,960
   (3) $30,000
   (4) $35,000
   (5) $60,000

2. Ms. Nguyen is a real estate agent. One of her clients is considering buying a house in the Silver Lakes area, where 6 houses have recently sold for the following amounts: $160,000; $150,000; $185,000; $180,000; $145,000; $190,000. What should Ms. Nguyen report as the MEDIAN price of these houses?

   (1) $160,000
   (2) $170,000
   (3) $180,000
   (4) $190,000
   (5) Not enough information is given.

3. If \( 3x - 6 = 12 \), what is the value of \( x \)?

   **PLEASE DO NOT WRITE IN THIS TEST BOOKLET.**

   Mark your answer in the circles in the grid on your answer sheet.
Questions 4 through 6 refer to the following graph and information.

![Graph showing typing speed over weeks of practice]

6. The slope of the line of best fit represents the increase in words per minute for each additional week of practice. Based on the slope of the line, by how many words per minute can an employee expect to increase her or his speed for each additional week of practice?

   (1) 8
   (2) 20
   (3) 25
   (4) 80
   (5) 100

7. Electric switches that regularly sell for $0.69 each are advertised this week at 5 for $2.75. How much is saved by purchasing 5 switches at the sale price rather than at the regular price?

   (1) $6.20
   (2) $3.45
   (3) $2.75
   (4) $0.70
   (5) $0.14
8. Leg $XY$ of the right triangle shown in the diagram below is twice as long as leg $YZ$.

If the area of the triangle is $36 \text{ cm}^2$, what is the length, in cm, of leg $XY$?

(1) 6  
(2) 9  
(3) 12  
(4) 18  
(5) 24

9. The standard formula used by mechanics to find the length ($L$) of a fan belt of a car is as follows:

$$L = 2C + \frac{11(D + d)}{7} + \frac{(D - d)^2}{4C}$$

where $D$ and $d$ are the diameters of the wheels around which the belt runs, and $C$ is the distance between the centers of the wheels.

What is $L$ (in inches) if $D = 12$ inches, $d = 2$ inches, and $C = 25$ inches?

(1) 39  
(2) 73  
(3) 97  
(4) 121  
(5) 229

10. Juanita had her car windshield replaced at a cost of $250$. After a $50$ deductible is applied (i.e., Juanita pays the first $50$), her insurance company will pay 80 percent of the remaining balance. In dollars, how much will the insurance company pay?

PLEASE DO NOT WRITE IN THIS TEST BOOKLET.

Mark your answer in the circles in the grid on your answer sheet.
11. The dimensions of the rectangle shown below are $2x$ and $3x$.

How many square units are in its area?

(1) $12$
(2) $5x$
(3) $10x$
(4) $5x^2$
(5) $6x^2$

12. Susan left $650$ in a savings account for one year. At the end of that time she received an interest credit of 5%. Then she withdrew all of her money and had to pay a service charge of $1.75$. How much money did she have after paying the service charge?

(1) $648.25$
(2) $653.25$
(3) $680.75$
(4) $682.50$
(5) $684.25$

13. The mean (average) weight of 5 boys is 160 pounds. If three of the boys weigh 152, 158, and 168 pounds respectively, which of the following could be the weights, in pounds, of the other two boys?

(1) 165 and 150
(2) 162 and 156
(3) 160 and 162
(4) 157 and 168
(5) 155 and 172
MATHEMATICS
Tests of General Educational Development

Directions

The Mathematics Test consists of 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 23 minutes to complete the 13 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 4. 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 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.
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.

```
3 / 4
0 0 0
1 1 1
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6
7 7 7
8 8 8
9 9 9

3 / 4
0 0 0
1 1 1
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6
7 7 7
8 8 8
9 9 9

0 . 7 5
0 0 0
1 1 1
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6
7 7 7
8 8 8
9 9 9

. 7 5
0 0 0
1 1 1
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6
7 7 7
8 8 8
9 9 9
```

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 grided as 3.5 or 7/2.
- No answer can be a negative number.

**GO ON TO THE NEXT PAGE**
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: √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.

DO NOT BEGIN TAKING THIS TEST UNTIL TOLD TO DO SO