Test Form Canadian PA
Mathematics Part II

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

**Area of a:**

<table>
<thead>
<tr>
<th>Shape</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>square</td>
<td>Area = side^2</td>
</tr>
<tr>
<td>rectangle</td>
<td>Area = length × width</td>
</tr>
<tr>
<td>parallelogram</td>
<td>Area = base × height</td>
</tr>
<tr>
<td>triangle</td>
<td>Area = ( \frac{1}{2} \times base \times height )</td>
</tr>
<tr>
<td>trapezoid</td>
<td>Area = ( \frac{1}{2} \times (base_1 + base_2) \times height )</td>
</tr>
<tr>
<td>circle</td>
<td>Area = ( \pi \times radius^2 ); ( \pi ) is approximately equal to 3.14.</td>
</tr>
</tbody>
</table>

**Perimeter of a:**

<table>
<thead>
<tr>
<th>Shape</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>square</td>
<td>Perimeter = 4 × side</td>
</tr>
<tr>
<td>rectangle</td>
<td>Perimeter = 2 × length + 2 × width</td>
</tr>
<tr>
<td>triangle</td>
<td>Perimeter = side_1 + side_2 + side_3</td>
</tr>
</tbody>
</table>

**Circumference of a circle**

Circumference = \( \pi \times diameter \); \( \pi \) is approximately equal to 3.14.

**Volume of a:**

<table>
<thead>
<tr>
<th>Shape</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>cube</td>
<td>Volume = edge^3</td>
</tr>
<tr>
<td>rectangular solid</td>
<td>Volume = length × width × height</td>
</tr>
<tr>
<td>square pyramid</td>
<td>Volume = ( \frac{1}{3} \times (base \text{ edge})^2 \times height )</td>
</tr>
<tr>
<td>cylinder</td>
<td>Volume = ( \pi \times radius^2 \times height ); ( \pi ) is approximately equal to 3.14.</td>
</tr>
<tr>
<td>cone</td>
<td>Volume = ( \frac{1}{3} \times \pi \times radius^2 \times height ); ( \pi ) is approximately equal to 3.14.</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**

\[ \text{interest} = \text{principal} \times \text{rate} \times \text{time} \]

**Distance**

\[ \text{distance} = \text{rate} \times \text{time} \]

**Total Cost**

\[ \text{total cost} = (\text{number of units}) \times (\text{price per unit}) \]
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.

14. The scale on a hiker's map states that 1 inch = 2000 feet. Anna wants to know how far it is to her next campsite. On the map, the next campsite is 5 inches from her present location. What is the actual distance, in feet, between Anna's present location and her next campsite?

(1) 5
(2) 400
(3) 600
(4) 5000
(5) 10000

15. The graph below shows the expected rainfall from a hurricane, based on the speed at which the hurricane is moving.

![Expected Rainfall from a Hurricane](image)

Based on the graph, what would be the approximate amount of rainfall, in inches, if a hurricane moves at 12 mph?

(1) 15
(2) 12
(3) 10
(4) 7
(5) 4
16. A company charges $60 per day plus $0.50 per mile for truck rentals. If Greg rents a truck for 3 days and drives it a total of 150 miles, what will the company charge?

(1) $110  
(2) $135  
(3) $230  
(4) $255  
(5) $300

17. For the right triangle shown in the diagram below, angle A measures 90° and sides AB and AC have the same length. What is the measure of angle C?

(1) 30°  
(2) 45°  
(3) 60°  
(4) 90°  
(5) 135°

18. A carpenter is making a larger triangular brace similar to the one shown below.

The base of the new brace is 36 inches. What is the length, in inches, of side b if the triangles are similar?

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

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

19. To rent a ball field for a game costs a $300 basic fee plus a $2 fee per person. If x persons attend the game, which equation can be used to find T, the total cost of renting the ball field?

(1) \( T = 2x + 300 \)  
(2) \( T = 300x + 2 \)  
(3) \( T = (300 + 2)x \)  
(4) \( T = \frac{300 + 2}{x} \)  
(5) \( T = (300)(2x) \)
20. When none of the games have been sold, the revenue from sales will be zero. At the same time, the cost of production is expected to be approximately $150 000. Why might this be true?

(1) The game might not be popular at first.
(2) The price of the game might be too high at first.
(3) Start-up money must be spent to produce the games.
(4) The company may have decided to manufacture the game in small quantities at first.
(5) The game might sell better if it is introduced at a different time of year.

21. Based on market surveys, the cost of production is eventually projected to be greater than the revenue from sales. The graph shows this is likely to occur after approximately how many games have been produced?

(1) 2 500
(2) 4 500
(3) 8 500
(4) 10 500
(5) 12 500

22. The graph of a circle is shown on the grid below.

What point is the location of the center of the circle?

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

Mark your answer on the coordinate plane grid on your answer sheet.
23. Julio invested a sum of money at 6% interest. Krista invested $200 less than Julio, but her bank paid her 9% interest. After one year, what was the **difference** between the amount of interest Krista had earned and the amount of interest Julio had earned?

(1) $ 6.00
(2) $ 12.00
(3) $ 18.00
(4) $ 200.00
(5) Not enough information is given.

24. Carpenters earn an average of $1120 less per month than designers at a furniture factory in Smithville. The factory employs 3 designers and 15 carpenters. Let \( x \) represent the average monthly pay of a designer.

Which of the following functions correctly shows the relationship between the monthly payroll (\( P \)) and the wages of these employees?

(1) \( P = 3x + 15(x - 1120) \)
(2) \( P = 3(x - 1120) + 15x \)
(3) \( P = 3(x - 1120) + 15(x - 1120) \)
(4) \( P = 3 + x + 15 + (x - 1120) \)
(5) \( P = 3(x)(15)(x - 1120) \)

25. The public transportation system in Central City charges $90 for a 2-ft. by 3-ft. rectangular advertising space in its buses.

If the price (\( x \)) of an ad is proportional to its area, which of the following expressions correctly determines the price (\( x \)) for a 4-ft. by 5-ft. advertisement?

(1) \( \frac{5}{9} = \frac{90}{x} \)
(2) \( \frac{6}{20} = \frac{90}{x} \)
(3) \( \frac{6}{x} = \frac{20}{90} \)
(4) \( \frac{10}{18} = \frac{90}{x} \)
(5) \( \frac{10}{x} = \frac{18}{90} \)
MATHEMATICS
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 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 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

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 gridded are shown below.

- [Diagram of gridded answers]

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