GED Ready® Practice Test

Mathematical Reasoning
Performance Level Descriptors: Yellow Zone

Yellow Zone: Too Close To Call

Scoring into the **Yellow Zone** on the GED Ready® practice test- Mathematical Reasoning shows that a test-taker may or may not have demonstrated the skills required to pass the GED® test - Mathematical Reasoning.

Although the test-taker's performance on the GED Ready® practice test shows his or her score is in a range where the test-taker could sometimes pass the GED® test, the result only represents an indication of the test-taker's preparedness and does not guarantee a positive result on the GED® test. Many test-takers that score in this range ultimately do pass the GED® test - Mathematical Reasoning on their first attempt. However, many test-takers that score in this range need more preparation in this content area in order to pass the GED® test.

Test-takers who score into this zone typically demonstrate basic proficiency with the following skills:

Quantitative Problem Solving with Rational Numbers

- Compute with rational numbers at a basic level
- Compute with squares and square roots of positive, rational numbers at a basic level
- Solve problems involving rational numbers at a basic level
- Compute unit rates at a basic level
- Solve two-step, arithmetic, real world problems involving percents at a basic level

Quantitative Problem Solving in Measurement

- Compute the area and perimeter of triangles and rectangles at a basic level
- Determine side lengths of triangles and rectangles, when given area or perimeter, at a basic level
- Compute volume and surface area of rectangular prisms at a basic level
- Solve for height or side lengths of rectangular prisms at a basic level, when given volume or surface area
- Represent, display, and interpret categorical data in bar graphs and circle graphs at a basic level

- Represent, display, and interpret data involving two variables in tables and the coordinate plane, including scatter plots and graphs, at a basic level
- Calculate the mean, median, mode, range, and weighted average, and calculate a missing data value, given the average and all the missing data values but one, at a basic level

Algebraic Problem Solving with Expressions and Equations

- Evaluate linear expressions at a basic level
- Write linear expressions at a basic level, when given written descriptions
- Evaluate polynomial expressions at a basic level
- Compute with rational expressions at a basic level
- Evaluate rational expressions at a basic level
- Solve one-variable linear equations at a basic level
- Solve real-world problems involving linear equations at a basic level
- Solve a system of two simultaneous linear equations and real-world problems leading to a system of linear equations, at a basic level

Algebraic Problem Solving with Graphs and Functions

- Locate points in the coordinate plane at a basic level
- For a linear or nonlinear relationship, sketch graphs and interpret key features of graphs and tables in terms of quantities at a basic level
- Compare two different proportional relationships, each represented in different ways, at a basic level
- Represent or identify a function in a table or graph as having exactly one output for each input, at a basic level
- Evaluate linear and quadratic functions at a basic level

Scoring into the **Green Zone** on the GED Ready® practice test- Mathematical Reasoning indicates that the test-taker is likely to pass the GED® test - Mathematical Reasoning.

1) In order **to progress into the Green Zone**, the test-taker should strengthen the skills listed in the Yellow Zone and apply them at a basic level of proficiency, with a particular focus on the following Yellow Zone skills:

   - Compute with rational numbers
   - Compute with squares and square roots of positive, rational numbers
   - Solve problems involving rational numbers
   - Compute unit rates
   - Solve two-step, arithmetic, real world problems involving percents
   - Compute the area and perimeter of triangles and rectangles
   - Determine side lengths of triangles and rectangles, when given area or perimeter
   - Compute volume and surface area of rectangular prisms
   - Solve for height or side lengths of rectangular prisms, when given volume or surface area
   - Represent, display, and interpret categorical data in bar graphs and circle graphs
   - Represent, display, and interpret data involving two variables in tables and the coordinate plane, including scatter plots and graphs

- Calculate the mean, median, mode, range, and weighted average, and calculate a missing data value, given the average and all the missing data values but one
- Evaluate linear expressions
- Write linear expressions when given written descriptions
- Evaluate polynomial expressions
- Compute with rational expressions
- Evaluate rational expressions
- Solve one-variable linear equations
- Solve real-world problems involving linear equations
- Solve a system of two simultaneous linear equations and real-world problems leading to a system of linear equations
- Locate points in the coordinate plane
- For a linear or nonlinear relationship, sketch graphs and interpret key features of graphs and tables in terms of quantities
- Compare two different proportional relationships represented in different ways
- Represent or identify a function in a table or graph as having exactly one output for each input
- Evaluate linear and quadratic functions

and

2) develop the following additional skills:

- Order fractions and decimals, including on a number line
- Apply number properties involving multiples and factors
- Simplify numerical expressions with rational exponents
- Identify absolute value of a rational number as its distance from 0 on the number line and determine the distance between two rational numbers on the number line
- Compute with cubes and cube roots of positive, rational numbers
- Determine when a numerical expression is undefined
- Use scale factors to determine the magnitude of a size change and convert between actual drawings and scale drawings
- Solve multistep problems involving ratios and proportions
- Compute the area and circumference of circles
- Determine the radius or diameter of a circle when given area or circumference
- Compute the area and perimeter of polygons
- Determine the side lengths of a polygon when given area or perimeter
- Compute the area and perimeter of composite two-dimensional figures
- Use the Pythagorean Theorem to determine unknown side lengths in a right triangle
- Compute the volume and surface area of cylinders
- Solve for height, radius, or diameter of cylinders when given volume or surface area
- Compute the volume and surface area of right prisms
- Solve for height or side lengths of right prisms when given volume or surface area
- Compute the volume and surface area of right pyramids and cones
- Solve for side lengths, height, radius, or diameter of right pyramids and cones when given volume or surface area

- Compute the volume and surface area of spheres
- Solve for radius or diameter of spheres when given volume or surface area
- Compute the volume and surface area of composite three-dimensional figures
- Represent, display, and interpret data involving one variable plots on the real number line including dot plots, histograms, and box plots
- Use counting techniques to solve problems and determine combinations and permutations
- Determine the probability of simple and compound events
- Compute with and factor linear expressions
- Compute with polynomials
- Factor polynomials
- Write polynomial expressions when given written descriptions
- Write rational expressions when given written descriptions
- Write one-variable and multi-variable linear equations to represent context
- Solve one-variable linear inequalities
- Identify or graph the solution to a one variable linear inequality on a number line
- Write one-variable and multi-variable linear inequalities to represent context
- Solve real-world problems involving inequalities
- Solve quadratic equations in one variable with real solutions
- Write one-variable quadratic equations to represent context
- Determine the slope of a line from a graph, equation, or table
- Interpret unit rate as the slope in a proportional relationship
- Graph two-variable linear equations on the coordinate plane
- Write the equation of a line with a given slope and a given point
- Write the equation of a line passing through two given distinct points
- Use slope to identify parallel and perpendicular lines and to solve geometric problems
- Compare two linear or quadratic functions, each represented in different ways