

GED Mathematical Reasoning

My Score: 142

BELOW PASSING

Percentile: 11% ⓘ

Testing Center: York County School of Technology

Test Date: 11/30/2017

How I Can Score Higher



Aztec Software 2014 GED® Learning Series

by Aztec Software

The GED® Learning Series allows students to conveniently access the core competencies of the new GED® test so that prep work can be completed quickly and accurately.

Basic Math

Skill You Can Improve

- Compute and solve problems with whole numbers, fractions, and decimals

Publisher Study Recommendations ⓘ

Unit -
Quantitative Problem Solving with Rational Numbers, Lesson - Mathematical Operations, Screens 3-34, Lesson - Math Word Problems, Screens 2-16, Lesson - Exponents and Roots, Screens 22-25, 46-53

Skill You Can Improve

Publisher Study Recommendations ?

•Calculate and compute with squares, square roots, cubes, and cube roots of numbers

Unit -
Quantitative Problem Solving with Rational Numbers, Lesson - Exponents and Roots, Screens 26-35, 40-45

•Find multiples and factors (Example: least common multiple, greatest common factor)

Unit
- Quantitative Problem Solving with Rational Numbers, Lesson - Number Properties and Forms, Screens 4-14

•Solve multiple-step problems that use ratios, proportions, and percents (Examples: simple interest, percent increase and decrease, gratuities, and commissions)

Unit
- Quantitative Problem Solving with Rational Numbers, Lesson - Ratios and Percentages, Screens 5-14, 34-48

•Find the distance between numbers on a number line using absolute value

Unit
- Quantitative Problem Solving with Rational Numbers, Lesson - Numbers, Screens 30-38

Geometry

Skill You Can Improve

Publisher Study Recommendations ?

•Find the area and perimeter of two-dimensional shapes (Examples: triangles, rectangles, polygons, composite shapes)

Unit -
Quantitative Problem Solving in Measurement, Lesson - Composite Figures, Screens 2, 15-29, 40-50

•Use counting techniques to solve problems (Example: count how many different ways objects can be ordered, arranged, or combined)

Unit -
Quantitative Problem Solving in Measurement, Lesson - Permutation, Combinations and Counting Techniques, Screens 2-17

•Construct, and explain data from bar graphs, circle graphs, dot plots, histograms, box plots, tables, scatter plots, and line graphs

Unit -
Quantitative Problem Solving in Measurement, Lesson - Plots and Graphs, Screens 2-16, Lesson - Range, Mode, Median, and Mean, Screens 23-26

Skill You Can Improve

- Find the volume and surface area of three-dimensional shapes (Examples: rectangular and right prisms, cylinders, right pyramids). Find the side lengths, radius, or diameter of a three-dimensional figure when given the volume or surface area

Publisher Study Recommendations ?

- Unit
- Quantitative Problem Solving in Measurement, Lesson - Solid Figures, Screens 4-63, Lesson - Composite Figures, Screens 30-38

Basic Algebra

Skill You Can Improve

- Solve linear equations and real-world problems that involve them (Example: calculate the fuel efficiency of a car at different speeds)

Publisher Study Recommendations ?

- Unit -
- Algebraic Problem Solving with Expressions and Equations, Lesson - Linear Equations, Screens 3-24

- Solve inequalities and real-world problems that involve them, and graph the solutions

- Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson - One Variable Inequalities, Screens 4-30

- Solve a system of linear equations and real-world problems that involve them

- Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson - Systems of Linear Equations, Screens 2-18

- Create algebraic expressions to represent problem situations or word-to-symbol translations (Example: write an inequality to match a word problem)

- Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson - Interpreting and Writing Expressions, Screens 8-17, Lesson - Linear Equations, Screens 3-24, Lesson - One Variable Inequalities, Screens 28-29, Lesson - Solving Quadratic Equations, Screens 31-33

Skill You Can Improve

•Create polynomials to represent problem situations or word-to-symbol translations [Example: a triangle has three sides with the following lengths: $2x + 1$ units, $3x + 5$ units, and $4x - 1$ units. Write an algebraic expression for the perimeter of the triangle in units.]

•Add, subtract, multiply, divide, and factor polynomials [Example: $(x + 8)(x + 4)$; factor $3x^2 + 10x - 8$]

•Solve quadratic equations in one variable [Example: $3x^2 + 2x - 8 = 0$]

•Evaluate algebraic expressions by replacing variables with numbers [Example: evaluate the following expression for $y = 1$: $\frac{y - 2}{-5 + y}$]

Publisher Study Recommendations ?

Unit -
Algebraic Problem Solving with Expressions and Equations, Lesson -
Interpreting and Writing Expressions, Screens 8-15, Lesson - The Unknown Value in Polynomial Expressions, Screens 17-25

Unit -
Algebraic Problem Solving with Expressions and Equations, Lesson - Adding and Subtracting Polynomials, Screens 9-24, Lesson - Multiplying and Dividing Polynomials, Screens 3-46, Lesson - Factoring Polynomials, Screens 7-32

Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson -
Solving Quadratic Equations, Screens 9-33

Unit -
Algebraic Problem Solving with Expressions and Equations, Lesson - The Unknown Value in Linear Expressions, Screens 4-22, Lesson - The Unknown Value in Polynomial Expressions, Screens 4-16, Lesson - Adding and Subtracting Rational Expressions, Screens 31-33

Graphs and Functions

Skill You Can Improve

Publisher Study Recommendations ?

Skill You Can Improve

Publisher Study Recommendations ?

•Find the slope of a line from a graph, equation, or table

Unit -
Algebraic Problem Solving with Expressions and Equations, Lesson -
Graphing on the Coordinate Plane, Screens 24-43, 48

•Locate points and graph linear equations in the coordinate plane

Unit -
Algebraic Problem Solving with Expressions and Equations, Lesson -
Graphing on the Coordinate Plane, Screens 7-19, Lesson - Two Variable Linear Equations, Screens 2-17

•Evaluate a function [Examples: $f(x) = x^2 - 3x$; find $f(-8)$; solve $x^2 + 3x - 28 = 0$]

Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson -
Functions, Screens 17-18

•Compare functions that are shown in different ways such as tables, graphs, descriptions, equations

Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson -
Functions, Screens 32-33

•Use slope to identify whether lines are parallel or perpendicular and to solve problems

Unit
- Algebraic Problem Solving with Expressions and Equations, Lesson -
Graphing on the Coordinate Plane, Screens 44-46

Additional Skills to Work On

To improve your performance and earn the Pass/High School Equivalency level, you should:

Strengthen the skills you have already demonstrated, including:

- Apply number properties involving multiples and factors
- Solve problems using rational numbers
- Compute unit rates

- Compute the area and perimeter of triangles and rectangles
- Find the side lengths of triangles and rectangles when given area or perimeter
- Create linear expressions with written descriptions you have been given
- Evaluate polynomial expressions
- Create rational expressions with written descriptions you have been given
- Solve real-world problems involving linear equations
- Understand that a unit rate is equivalent to slope in a proportional relationship
- Compare two different proportional relationships when each is represented in different ways
- Using a table or graph, represent or identify a function as having exactly one output for each input
- Evaluate linear and quadratic functions

And develop the following additional skills:

- Place fractions and decimals in order, including when using a number line
- Simplify numerical expressions with rational exponents
- Identify the absolute value of a rational number as its distance from 0 on the number line and find the distance between two rational numbers on the number line
- Perform computations with rational numbers
- Compute numerical expressions with squares and square roots of positive, rational numbers
- Compute numerical expressions 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 arithmetic and real-world problems involving ratios and proportions a satisfactory level
- Solve multi-step arithmetic and real-world problems involving percents
- Compute the area and circumference of circles
- Find the radius and diameter of circles when given area or circumference
- Compute the area and perimeter of polygons

- Find the side lengths of polygons when given area or perimeter
- Compute the area and perimeter of composite figures
- Use the Pythagorean theorem ($a^2 + b^2 = c^2$) to determine unknown side lengths in a right triangle
- Compute volume and surface area of rectangular prisms
- Find the side lengths and height of rectangular prisms when given volume or surface area
- Compute volume and surface area of cylinders
- Find the radius, diameter, and height of cylinders, when given volume or surface area
- Compute volume and surface area of right prisms
- Find the side lengths and height of right prisms when given volume or surface area
- Find the side lengths and height of right pyramids and cones when given volume or surface area
- Compute volume and surface area of spheres
- Find the radius and diameter of spheres when given volume or surface area
- Compute volume and surface area of composite figures
- Represent, display, and interpret categorical data in dot plots, histograms, and box plots
- Calculate the median, mode, and weighted average, and calculate a missing data value, given the average and all the missing data values but one
- Use counting techniques to solve problems and find combinations and permutations
- Compute with linear expressions
- Create linear expressions with written descriptions you have been given
- Evaluate linear expressions
- Compute with polynomials
- Factor polynomials
- Create polynomial expressions with written descriptions you have been given
- Evaluate rational expressions
- Solve linear equations in one variable
- Create linear equations with written descriptions you have been given
- Solve inequalities
- Identify or graph the solution to a one-variable linear inequality on a number line
- Solve real-world problems that involve inequalities

- Create linear equations with written descriptions you have been given
- Solve quadratic equations in one variable
- Create quadratic equations with written descriptions you have been given
- Find the slope of a line from a graph, equation, or table
- Graph two-variable linear equations
- Create the equation of a line with a given slope through a given point
- Create 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 different linear or quadratic functions when each is represented in different ways

What My Score Means

My Performance

Your score places you in the Below Passing Level in Mathematical Reasoning. To earn the GED® Passing Score in Mathematical Reasoning, you should improve your skills in the following areas:

Basic Math

Geometry

Basic Algebra

Graphs and Functions

Test-takers who score at this level generally show abilities with skills including:

Quantitative Problem Solving With Rational Numbers

- Apply number properties that involve multiples and factors at a limited and inconsistent level
- Solve problems using rational numbers at a limited and inconsistent level
- Compute unit rates at a limited and inconsistent level

Quantitative Problem Solving in Measurement

- Compute the area and perimeter of triangles and rectangles at a limited and inconsistent level
- Find the side lengths of triangles and rectangles when given area or perimeter at a limited and inconsistent level

- Represent, display, and interpret categorical data in circle and bar graphs
- Represent, display, and interpret categorical data in tables and scatter plots

Algebraic Problem Solving With Expressions and Equations

- Evaluate linear expressions
- Create linear expressions with written descriptions you have been given at a limited and inconsistent level
- Evaluate polynomial expressions at a limited and inconsistent level
- Create rational expressions with written descriptions you have been given at a limited and inconsistent level
- Solve real-world problems that involve linear equations at a limited and inconsistent level
- Solve algebraic and real-world problems involving systems of equations

Algebraic Problem Solving With Graphs and Functions

- Locate points in the coordinate plane
- Understand that a unit rate is equivalent to slope in a proportional relationship at a limited and inconsistent level
- 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 when each is represented in different ways, at a limited and inconsistent level
- Using a table or graph, represent or identify a function as having exactly one output for each input at a limited and inconsistent level
- Evaluate linear and quadratic functions at a limited and inconsistent level

