

**Georgia End-of-Course Test
GPS Geometry
Performance Level Descriptors**

EXCEEDS STANDARD

General Performance Level Descriptors

Students performing at this level demonstrate a comprehensive understanding and mastery of the procedures and concepts in the content domains of geometry, data analysis, and algebra. They routinely apply their understanding by making connections, reasoning, communicating, using representations, and solving problems. Performance at this level is indicated by the use of complex strategies and higher-level cognitive skills to analyze and solve mathematical and real-world problems.

Specific Performance Level Descriptors

Students at this level are able to do the following:

Geometry

- Create proofs and solve for unknowns by analyzing and evaluating the characteristics of complex geometric figures in a coordinate plane.
- Evaluate logical arguments and draw appropriate conclusions in complex situations.
- Analyze and apply the properties of and relationships among special quadrilaterals.
- Understand and apply triangle theorems and postulates in complex situations.
- Understand and apply right triangle relationships, including trigonometric relationships in complex situations.
- Analyze and apply the properties of and relationships among circles and associated lines, segments, and angles.
- Analyze and solve complex problems involving measures related to spheres.

Data Analysis and Probability

- Analyze and evaluate sample data, making inferences about population means and standard deviations and using these inferences to compare data sets.
- Understand and apply the distinctions between sample data and population data.

Algebra

- Analyze and evaluate the characteristics of exponential functions as well as inverses of linear, quadratic, and power functions.
- Analyze and solve exponential equations and inequalities using a variety of techniques.
- Interpret and apply the characteristics of exponential functions with regard to a given context.
- Analyze and evaluate geometric sequences as functions.

**Georgia End-of-Course Test
GPS Geometry
Performance Level Descriptors**

MEETS STANDARD

General Performance Level Descriptors

Students performing at this level demonstrate an understanding of and proficiency with the procedures and concepts in the content domains of geometry, data analysis, and algebra. They generally apply their understanding by making connections, reasoning, communicating, using representations, and solving problems. Performance at this level is indicated by the use of effective strategies and some higher-level cognitive skills to analyze and solve mathematical and real-world problems.

Specific Performance Level Descriptors

Students at this level are able to do the following:

Geometry

- Create proofs and solve for unknowns by describing and explaining the characteristics of simple geometric figures in a coordinate plane.
- Use logical reasoning to draw appropriate conclusions.
- Describe and use the properties of and relationships among special quadrilaterals.
- Explain and use triangle theorems and postulates.
- Describe and apply right triangle relationships, including trigonometric relationships in routine situations.
- Describe and apply the properties of and relationships among circles and associated lines, segments, and angles.
- Solve problems involving measures related to spheres.

Data Analysis and Probability

- Calculate population means and standard deviations and use them to compare data sets.
- Recognize the distinction between sample data and population data.

Algebra

- Describe and explain the characteristics of exponential functions as well as inverses of linear, quadratic, and power functions.
- Solve simple exponential equations and inequalities.
- Describe and explain the characteristics of exponential functions with simple context.
- Recognize and represent geometric sequences as functions with domains that are whole numbers.

**Georgia End-of-Course Test
GPS Geometry
Performance Level Descriptors**

DOES NOT MEET STANDARD

General Performance Level Descriptors

Students performing at this level demonstrate a minimal understanding of and proficiency with the procedures and concepts in the content domains of geometry, data analysis, and algebra. They are occasionally able to make connections, reason, communicate, use representations, and solve problems. Problem solving is based on their ability to memorize some key concepts and perform routine procedures.

Specific Performance Level Descriptors

Students at this level are able to do the following:

Geometry

- Solve for unknowns by identifying some characteristics of simple geometric figures in a coordinate plane.
- Recognize appropriate conclusions in some simple situations.
- Recognize and identify some properties of and relationships among special quadrilaterals in simple situations.
- Recognize and use some triangle theorems and postulates in simple situations.
- Identify and use some right triangle trigonometry relationships.
- Recognize and identify some properties of and relationships among circles and lines.
- Compute volume and surface areas of spheres in routine contexts.

Data Analysis and Probability

- Compute population means and standard deviations in routine contexts.
- Recognize that sample data and population data are different.

Algebra

- Identify some of the characteristics of exponential functions as well as the inverses of some basic functions.
- Recognize and extend some geometric sequences.