



# Illinois State Board of Education

100 North First Street • Springfield, Illinois 62777-0001  
www.isbe.net

**James T. Meeks**  
Chairman

**Tony Smith, Ph.D.**  
State Superintendent of Education

Dear Families,

The reports that you are receiving reflect your child's individual performance on the Partnership for Assessment of Readiness for College and Careers (PARCC) test. The PARCC assessment serves as an "educational GPS system" that is designed to measure students' current performance in relation to the Illinois Learning Standards, to which the assessment is aligned. It points the way to what students need to learn in order to be ready for the next grade level and, by the end of high school, for future success in college and careers.

The Illinois Learning Standards set high expectations that are focused on critical thinking and real world application. We expect that the more detailed information provided by the PARCC score reports and supporting materials will lead to strong engagement between parents, teachers, and students in support of student learning. We encourage you to talk to your child's teacher about these results and about what you are doing at home to support your child's success.

We must celebrate the good work our teachers and schools are doing to teach the new content critical for the future success of our students. We fully expect students will continue to make progress along the continuum of mastery as they gain additional knowledge related to the standards and become more familiar with the technology.

It is understood that no test can ever fully capture the skills and abilities of a great teacher or the extraordinary benefits and positive impact of a great school. Tests are one measure to help track our progress. Along with other indicators, tests help give us a sense of where and how we are succeeding and where and how we must improve. The PARCC assessment is designed to give schools and teachers more information to support improvement and differentiation in instruction.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Smith".

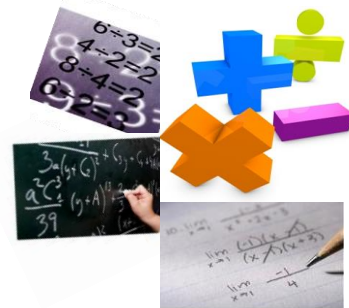
Tony Smith, Ph.D.  
State Superintendent of Education

## VISIT THE FOLLOWING WEBSITES FOR MORE INFORMATION:

**ISBE PARCC PLACE** at <https://www.isbe.net/Pages/PARCC-Place.aspx>  
**PARCC Online** at <http://parcc-assessment.org/resources/parent-resources>  
**UNDERSTAND THE SCORE** at [www.understandthescore.org/](http://www.understandthescore.org/)  
**CLASSROOMS IN ACTION** at [www.ilclassroomsinaction.org](http://www.ilclassroomsinaction.org)

## Performance Level Summary for Geometry

Performance level descriptors (PLDs) indicate what a typical student at each level should be able to demonstrate based on his/her command of grade-level standards. In mathematics, the performance levels at each grade level are written for each of four assessment sub-claims, which are represented on the individual student score report.



### Level 2

#### Sub-claims A and B – Major, additional, and supporting content

- Uses given geometric properties and theorems to solve routine problems. Understands the geometric constructions of copying an angle and a segment.
- Identifies a transformed figure.
- Uses trigonometric ratios.
- Uses measurement formulas and the coordinate plane to solve mathematical problems.

#### Sub-claim C – Reasoning

- Communicates a response, which may be incomplete, illogical, based on faulty assumptions, or include major calculation errors in written justifications.

#### Sub-claim D – Modeling

- Applies mathematics using given assumptions, tools and functions, analyzing relationships, and writing an incomplete algebraic expression or equation.

### Level 3

#### Sub-claims A and B – Major, additional, and supporting content

- Solves routine problems and reasons about given geometric properties and theorems. Understands basic geometric constructions and draws a transformed figure.
- Uses and applies trigonometric ratios and the Pythagorean Theorem.
- Uses measurement formulas, the coordinate plane and arcs in circles to solve mathematical problems.

#### Sub-claim C – Reasoning

- Communicates a logical response, which may be incomplete and include minor calculation errors in written justifications. Evaluates the validity of other's approaches and conclusions.

#### Sub-claim D – Modeling

- Applies mathematics illustrating and analyzing relationships between important quantities, writing an incomplete algebraic expression, equation, or function, modifying the model, and interpreting mathematical results in a simplified context.

### Level 4

#### Sub-claims A and B – Major, additional, and supporting content

- Proves statements using given geometric properties and theorems. Understands geometric constructions, specifies a sequence of transformations to obtain a transformed figure and uses transformations to determine relationships among simple geometric figures.
- Uses and applies the relationship between sine and cosine.
- Uses completing the square to solve mathematical problems and uses informal or dissection arguments for measurement formulas.

#### Sub-claim C – Reasoning

- Communicates a precise, logical response in written justifications. Makes mathematical connections and evaluates, interprets and critiques the validity of other's responses and reasoning.

**Sub-claim D – Modeling**

- Applies mathematics by making assumptions, mapping and analyzing relationships between important quantities, selecting appropriate tools to create models, writing a clear and correct algebraic expression, equation, or function, improving the model, and interpreting results in context.

**Level 5****Sub-claims A and B – Major, additional, and supporting content**

- Uses precise geometric terminology. Proves statements and models relationships using appropriate geometric properties and theorems. Understands geometric constructions using a variety of tools, specifies a sequence of transformations that will carry a figure onto itself or another figure and uses transformations and congruence and similarity criteria to prove relationships among simple geometric figures.
- Solves design problems and formulates generalizations using appropriate geometric properties and theorems.
- Uses informal dissection or limit arguments for measurement formulas.
- Uses measurement formulas, the coordinate plane and completing the square to solve real-world problems.

**Sub-claim C – Reasoning**

- Evaluates, interprets and critiques the validity of other’s responses, correcting, as necessary. Generalizes a conclusion or provides a counter example.

**Sub-claim D – Modeling**

- In real-world problems, analyzes and justifies constraints, relationships and models.

For more information and a full version of the PLDs, visit <http://parcc-assessment.org/assessments/test-design/mathematics/math-performance-level-descriptors>.