



State of Texas Assessments of Academic Readiness (STAAR™) Performance Level Descriptors Grade 8 Mathematics

Performance Level Descriptors

Mathematical process skills are not assessed in isolation but are incorporated into questions that assess grade 8 content. These process skills focus on applying mathematics to solve problems, communicating about mathematics, and using logical reasoning.

Students achieving Level III: Advanced Academic Performance can

- Evaluate the reasonableness of solutions to application problems involving operations with rational numbers and justify the solutions
- Predict and validate solutions to application problems using algebraic reasoning involving multiple representations and proportionality
- Extend and apply the concept of the Pythagorean theorem to problem situations
- Justify predictions and conclusions based on data analysis

Students achieving Level II: Satisfactory Academic Performance can

- Select and use appropriate operations to solve application problems involving rational numbers
- Solve application problems involving percents, proportions, and similarity
- Generate different representations of data using tables, graphs, linear equations, or verbal descriptions and solve application problems
- Apply the concept of similarity to solve application problems including problems with dilations
- Solve application problems involving surface area (prisms, pyramids, and cylinders) and volume (prisms, cylinders, pyramids, spheres, and cones)
- Solve application problems involving the Pythagorean theorem
- Find the probability of dependent events
- Recognize misuses of graphical or numerical information based on statistical data

Students achieving Level I: Unsatisfactory Academic Performance can

- Use appropriate operations to solve application problems with whole numbers, decimals, and fractions
- Use ratios to solve similarity problems
- Identify the Pythagorean theorem using pictures and models
- Find the probability of independent events