

A student who is **Proficient consistently exhibits** abilities to engage in mathematical reasoning, create multiple representations, problem solve, communicate, make connections, and apply quantitative skills. In the following three areas, students are able to:

Algebra:

- Apply the four basic operations (+, -, *, ÷) in writing and simplifying mathematical expressions and equations
- Simplify multi-step linear equations and inequalities
- Solve multi-step linear equations and inequalities
- Create multi-step linear equations and inequalities
- Interpret equations and inequalities
- Write mathematical expressions in verbal form
- Identify properties of equalities
- Interpret mathematical expressions in verbal form
- Create systems of linear equations
- Solve (algebraically and graphically) systems of linear equations
- Interpret linear functions
- Evaluate linear functions
- Apply linear functions in modeling situations
- Understand the concept of a function $\{(domain, range);(input, output);[x, f(x)]\}$
- Use function notation to interpret statements $\{(domain, range);(input, output);[x, f(x)]\}$
- Find the slope (rate of change) given a table of values or graph
- Interpret slope as a rate of change

Geometry

- Apply the definition of congruence in proving triangle congruence (CPCTC)
- Apply concepts of density based on area and volume (modeling situations)
- Understand transformation (translation, dilation, reflection, rotation)
- Apply geometric concepts in modeling situations
- Use geometric shapes and their measures and properties to find the circumference, perimeter, area, volume
- Identify transformation (translation, dilation, reflection, rotation)
- Apply rules of transformation

Data and Statistics

- Represent data graphically (scatter plot)
- Identify correlation (strong/weak, positive/negative, no correlation)

A student who is **Borderline Proficient** has **some abilities to engage** in mathematical reasoning, create multiple representations, problem solve, communicate, make **limited** connections, and apply quantitative skills. In the following three areas, students are able to:

Algebra:

- Apply the four basic operations (+, -, *, ÷) in simplifying mathematical expressions and equations
- Simplify 1- or 2-step linear equations and inequalities
- Solve 1- or 2-step linear equations and inequalities with integer solutions
- Write mathematical expressions in verbal form (1 step or 2 step)
- Identify properties of equality (commutative, associative, distributive)
- Interpret mathematical expressions in verbal form
- Find the solution of systems of linear equations from a given graph
- Evaluate linear functions
- Use function notation to interpret statements $\{(domain, range); (input, output); [x, f(x)]\}$
- Find the slope (rate of change) given a graph
- Interpret slope as a rate of change

Geometry

- Apply the definition of congruence in proving triangle congruence (CPCTC)
- Identify transformation (translation and dilation)
- Apply rules of translation

Data and Statistics

- Represent data graphically (scatter plot)
- Identify correlation (positive/negative, no correlation)