

# Mathematics Comparison

## Grade 6 Comparison

### Common Core State Standard

**CC.5.NBT.6** Perform operations with multi-digit whole numbers and with decimals to hundredths. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

### Arkansas Standards

**AR.4.NO.2.4 (NO.2.4.4)** Whole Number Operations: Represent and explain division as measurement and partitive division including equal groups, related rates, price, rectangular arrays (area model), combinations and multiplicative comparison

**AR.5.NO.3.1 (NO.3.5.1)** Computational Fluency: Develop and use a variety of algorithms with computational fluency to perform whole number operations using addition and subtraction (up to five-digit numbers), multiplication (up to three-digit x two-digit), division (up to two-digit divisor) interpreting remainders, including real world problems

## Grade 8 Comparison

### Common Core State Standard

**CC.8.F.2** Define, evaluate, and compare functions. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.

### Arkansas Standards

**AR.9-12.LF.A1.3.8 (LF.3.A1.8)** Write an equation in slope-intercept, point-slope, and standard forms given:

- two points,
- a point and y-intercept,
- x-intercept and y-intercept,
- a point and slope,
- a table of data,
- the graph of a line

**AR.9-12.LF.A1.3.9 (LF.3.A1.9)** Describe the effects of parameter changes, slope and/or y-intercept, on graphs of linear functions and vice versa

**AR.8-12.LF.A1.3.1 (LF.3.A1.1)** Distinguish between functions and non-functions relations by inspecting graphs, ordered pairs, mapping diagrams and/or tables of data

**AR.9-12.LF.A1.3.2 (LF.3.A1.2)** Determine domain and range of a relation from an algebraic expression, graphs, set of ordered pairs, or table of data

**AR.6.A.6.4 (A.6.8.4)** Algebraic Models and Relationships: Represent, with and without appropriate technology, simple exponential and/or quadratic functions using verbal descriptions, tables, graphs and formulae and translate among these representations

## Algebra I Comparison

### Common Core State Standard

**CC.9-12.A.CED.3** Create equations that describe numbers or relationship. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.\*

### Arkansas Standards

**AR.9-12.C.PCT.3.2 (C.3.PCT.2)** Solve, with and without appropriate technology, systems of equations and inequalities involving conics and other types of equations

**AR.9-12.LQF.A11.1.1 (LQF.1.A11.1)** Evaluate, add, subtract, multiply, divide and compose functions and determine appropriate domain and range restrictions

**AR.9-12.LQF.A11.1.8 (LQF.1.A11.8)** Apply, with and without appropriate technology the concepts of functions to real world situations including linear programming

## Standards for Mathematical Practice

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

