

Arkansas Curriculum Matrix for Mathematics

| Arkansas Mathematics Standards/Expectations Grade 6 | Common Core Mathematics Domains/Clusters/Standards Grade 6 | National Essential Skills Study (NESS) Rankings | | NESS | Bench- mark Exam | Priority |
|--|--|---|---|------|------------------------|----------|
| | | Rank | | | | |
| NO.1.6.1 Demonstrate conceptual understanding to find a specific <i>percent</i> of a number, using models, real life examples, or explanations | <u>Ratios and Proportional Relationships</u> Understand ratio concepts and use ratio reasoning to solve problems. 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. | M1 | Perform operations fluently with positive and negative numbers, including decimals, ratios, percents, and fractions, and show reasoning to justify results. | | | |
| | | M3 | Use proportional reasoning to solve real-world problems. | H | H | H |
| NO.1.6.2 Find decimal and <i>percent equivalents</i> for proper fractions and explain why they represent the same value | <u>Ratios and Proportional Relationships</u> Understand ratio concepts and use ratio reasoning to solve problems. 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. | M3 | Use proportional reasoning to solve real-world problems. | | | |
| | | M35 | Use the properties of real (rational and irrational) numbers and demonstrate understanding of ordering and absolute value. | H | L | M |

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|---|--|--|---|------|------------------|----------|
| NO.1.6.4 Convert, compare and order fractions (mixed numbers and improper fractions) decimals and <i>percents</i> and find their approximate locations on a number line | <u>Ratios and Proportional Relationships</u> Understand ratio concepts and use ratio reasoning to solve problems. 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. | M35 | Use the properties of real (rational and irrational) numbers and demonstrate understanding of ordering and absolute value. | M | H | H |
| NO.1.6.5 Recognize and identify <i>perfect squares</i> and their <i>square roots</i> | <u>Expressions & Equations</u> Apply and extend previous understandings of arithmetic to algebraic expressions. 1. Write and evaluate numerical expressions involving whole-number exponents. | M20 | Understand and apply the basic properties and laws of exponents and scientific notation to solve problems, including those with fractional, negative, and zero exponents. | M | L | M |
| | | M29 | Factor a composite number into its prime components and use least common denominators or least common multiples to solve equations. | | | |
| | | M35 | Use the properties of real (rational and irrational) numbers and demonstrate understanding of ordering and absolute value. | | | |