

## Kentucky Curriculum Matrix for Mathematics

Kentucky Mathematics Subdomains/Organizers/ Core Content Standards Grade 7	Common Core Mathematics Domains/Standards Grade 7	National Essential Skills Study (NESS) Rankings		NESS	KCCT	Priority
		Rank				
MA-07-1.2.1 Students will estimate to solve real-world and mathematical problems with fractions, decimals, and percents, checking for reasonable and appropriate computational results. DOK - 2	<u><b>Expressions &amp; Equations</b></u> <b>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</b> 3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. <i>For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</i>	M1	Perform operations fluently with positive and negative numbers, including decimals, ratios, percents, and fractions, and show reasoning to justify results.	H	M	H
		M6	Demonstrate understanding of, and accurately apply, place value to round off numbers.			
MA-07-1.4.1 Students will apply ratios and proportional reasoning to solve real-world problems (e.g., percents, sales tax, discounts, rate). DOK - 2	<u><b>Ratios and Proportional Relationships</b></u> <b>Analyze proportional relationships and use them to solve real-world and mathematical problems.</b> 3. Use proportional relationships to solve multistep ratio and percent problems. <i>Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</i>	M3	Use proportional reasoning to solve real-world problems.	H	M	H
		M13	Use the technique of dimensional analysis to convert units of measure (e.g., kilometers/hour to meters/minute) and apply ratios in real-world situations (e.g., scale drawings).			
MA-07-1.5.1 Students will identify and apply prime numbers, composite numbers, prime factorization, factors, multiples, and divisibility to solve real-world and mathematical problems (e.g., prime factorization to determine a least common multiple [LCM] or greatest common factor [GCF]). DOK - 2	<i><b>There is no Kentucky Content Statement – Common Core Alignment</b></i>	M29	Factor a composite number into its prime components and use least common denominators or least common multiples to solve equations.	H	H	H
		M35	Use the properties of real (rational and irrational) numbers and demonstrate understanding of ordering and absolute value.			