ACT Framework
Information taken from ACT.org

The ACT is the college entrance exam required and preferred by more four year colleges than any other exam. Illinois has the highest number of ACT tested high school graduates among all 50 states.

The math portion of the ACT contains sixty items to be completed within sixty minutes.

Content covered by the ACT Mathematics Test:
(The bolded topics may involve multiplicative reasoning involving rates)

   * Pre-Algebra (23%). Questions in this content area are based on basic operations using whole numbers, decimals, fractions, and integers; place value; square roots and approximations; the concept of exponents; scientific notation; factors; **ratio, proportion, and percent**; linear equations in one variable; absolute value and ordering numbers by value; elementary counting techniques and simple probability; data collection, **representation, and interpretation**; and understanding simple descriptive statistics.
   * Elementary Algebra (17%). Questions in this content area are based on properties of exponents and square roots, evaluation of algebraic expressions through substitution, **using variables to express functional relationships**, understanding algebraic operations, and the solution of quadratic equations by factoring.
   * Intermediate Algebra (15%). Questions in this content area are based on an understanding of the quadratic formula, rational and radical expressions, absolute value equations and inequalities, sequences and patterns, systems of equations, quadratic inequalities, functions, modeling, matrices, roots of polynomials, and complex numbers.
   * Coordinate Geometry (15%). Questions in this content area are based on graphing and the **relations between equations and graphs**, including points, lines, polynomials, circles, and other curves; graphing inequalities; **slope**; parallel and perpendicular lines; distance; midpoints; and conics.
   * Plane Geometry (23%). Questions in this content area are based on the properties and relations of plane figures, including angles and relations among perpendicular and parallel lines; properties of circles, triangles, rectangles, parallelograms, and trapezoids; transformations; the concept of proof and proof techniques; **volume**; and applications of geometry to three dimensions.
   * Trigonometry (7%). Questions in this content area are based on understanding trigonometric relations in right triangles; values and properties of trigonometric functions; graphing trigonometric functions; modeling using trigonometric functions; use of trigonometric identities; and solving trigonometric equations.

The objectives which may lead to exam items involving multiplicative reasoning with rates are the same as the objectives for the Work Keys (and are included in the Work Keys Framework document).