

## ACT College Readiness Standards and WorkKey Skills for MATHEMATICS

Predicted PSAE Status	<i>Skills needed to move to next level</i>
<b>Academic Warning</b>	<ul style="list-style-type: none"> <li>• Solve routine one-step arithmetic problems using whole numbers, fractions, and decimals.</li> <li>• Solve some routine two-step arithmetic problems.</li> <li>• Calculate the average of a list of numbers.</li> <li>• Compute the probability of a complement of an event.</li> <li>• Recognize one-digit factors of a number.</li> <li>• Solve one-step equations having integer or decimal answers.</li> <li>• Locate points on the number line and in the first quadrant.</li> <li>• Exhibit some knowledge of angles associated with parallel lines.</li> <li>• Compute the area and perimeter of rectangles.</li> </ul> <ul style="list-style-type: none"> <li>○ Change numbers from one form to another using whole numbers, fractions, decimals, or percentages.</li> <li>○ Add or subtract negative numbers.</li> </ul>
<b>Below</b>	<ul style="list-style-type: none"> <li>• Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportions, tax added, percentage off, and computing with a given average.</li> <li>• Determine the probability of a simple event.</li> <li>• Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor.</li> <li>• Add and subtract simple algebraic expressions.</li> <li>• Perform straightforward word-to-symbol translations.</li> <li>• Multiply two binomials.</li> <li>• Locate points in the coordinate plane</li> <li>• Determine the slope of a line from points or equations.</li> <li>• Exhibit knowledge of basic angle properties and special sums of angle measures.</li> <li>• Use geometric formulas when all necessary information is given.</li> <li>• Compute the area and circumference of circles.</li> <li>• Evaluate quadratic functions.</li> </ul> <ul style="list-style-type: none"> <li>○ Solve problems that require one or two operations.</li> <li>○ Multiply negative numbers</li> <li>○ Add commonly known fractions.</li> <li>○ Multiply a mixed number by a whole number or decimal.</li> <li>○ Look up a formula and perform single-step conversions within or between systems of measurement.</li> </ul>

Predicted PSAE Status	<i>Skills needed to move to next level</i>
<b>Meets</b>	<ul style="list-style-type: none"> <li>• Solve word problems containing several rates, proportions, or percentages.</li> <li>• Calculate or use a weighted average.</li> <li>• Apply rules of exponents.</li> <li>• Manipulate expressions and equations.</li> <li>• Solve quadratic and absolute value equations.</li> <li>• Find solutions to systems of linear equations.</li> <li>• Interpret and use information from graphs in the coordinate plane.</li> <li>• Use the distance formula and Pythagorean theorem.</li> <li>• Use properties of parallel and perpendicular lines to determine the equation of a line.</li> <li>• Use relationships involving area, perimeter, and volume to geometric figures to compute another measure.</li> <li>• Apply basic trigonometric ratios to solve right-triangle problems.</li> </ul> <ul style="list-style-type: none"> <li>○ Rearrange a formula before solving a problem.</li> <li>○ Find mistakes in solutions to problems.</li> <li>○ Find the best deal and use the result for another calculation.</li> <li>○ Find areas of basic shapes.</li> <li>○ Find the volume of a rectangular solid.</li> </ul>
<b>Exceeds</b>	

- Statements adapted from the ACT *College Readiness Standards* <http://www.act.org/standard/index.html>.
  - These statements correspond to levels on ACT *WorkKeys* <http://www.act.org/workkeys/assess/foundational.html>.