

## Middle School Benchmarks Used in the Evaluation

Fractions and operations on them were selected, since these are core areas at the middle school level.

<p>▶▶ <b>BENCHMARK - Number Concepts</b>                  The expression <math>a/b</math> can mean different things:</p> <ul style="list-style-type: none"> <li>◆ <math>a</math> parts of size <math>1/b</math> each,</li> <li>◆ <math>a</math> divided by <math>b</math>, or</li> <li>◆ <math>a</math> compared to <math>b</math>.</li> </ul> <p>(Chapter 9A, grades 6-8, benchmark 5, p. 213)</p>	<p>▶▶ <b>BENCHMARK - Number Skills</b></p> <ul style="list-style-type: none"> <li>◆ Use,</li> <li>◆ interpret, and</li> <li>◆ compare</li> </ul> <p>numbers in several equivalent forms such as integers, fractions, decimals, and percents.                  (Chapter 12B, grades 6-8, benchmark 2, pg. 291)</p>
<p>▶▶ <b>BENCHMARK - Geometry Concepts</b>                  Some shapes</p> <ul style="list-style-type: none"> <li>◆ have special properties:</li> <li>◆ Triangular shapes tend to make structures rigid, and</li> <li>◆ round shapes give the least possible boundary for a given amount of interior area.</li> </ul> <p>Shapes can</p> <ul style="list-style-type: none"> <li>◆ match exactly or</li> <li>◆ have the same shape in different sizes.</li> </ul> <p>(Chapter 9C, grades 6-8, benchmark 1, p. 224)</p>	<p>▶▶ <b>BENCHMARK - Geometry Skills</b>                  Calculate the circumferences and areas of</p> <ul style="list-style-type: none"> <li>◆ rectangles,</li> <li>◆ triangles, and</li> <li>◆ circles, and the</li> <li>◆ volumes of rectangular solids.</li> </ul> <p>(Chapter 12B, grades 6-8, benchmark 3, p. 291)</p>
<p>▶▶ <b>BENCHMARK - Algebra Graph Concepts</b>                  Graphs can show a variety of possible relationships between two variables.                  As one variable increases uniformly, the other may do one of the following:</p> <ul style="list-style-type: none"> <li>◆ increase or decrease steadily,</li> <li>◆ increase or decrease faster and faster,</li> <li>◆ get closer and closer to some limiting value,</li> <li>◆ reach some intermediate maximum or minimum</li> <li>◆ alternately increase and decrease indefinitely,</li> <li>◆ increase or decrease in steps, or</li> <li>◆ do something different from any of these.</li> </ul> <p>(Chapter 9B, grades 6-8, benchmark 3, p. 219)</p>	<p>▶▶ <b>BENCHMARK - Algebra Equation Concepts</b>                  Symbolic equations can be used to summarize how the quantity of something</p> <ul style="list-style-type: none"> <li>◆ changes over time or</li> <li>◆ in response to other changes.</li> </ul> <p>(Chapter 11C, grades 6-8, benchmark 4, p. 274)</p>

A skill benchmark was not selected for algebra because the development of equation-solving skills is not a central part of the middle grades curriculum for all students.