

Skills and Concepts to Enhance (73% Probability*) 171 - 180	Skills and Concepts to Develop (50% Probability*) 181 - 190	Skills and Concepts to Introduce (27% Probability*) 191 - 200
<p><b>Represent and Solve Problems</b></p> <ul style="list-style-type: none"> <li>• Uses a number line to construct addition facts with sums through 20 (whole numbers)</li> <li>• Solves real-world whole number addition problems with sums to 20 (result unknown)</li> <li>• Solves real-world whole number addition problems with sums to 20 (start unknown)</li> <li>• Solves real-world whole number addition problems with sums to 100 (result unknown)</li> <li>• Represents a basic facts addition problem with a number sentence</li> <li>• Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only)</li> <li>• Solves real-world whole number problems involving subtraction with numbers under 20</li> <li>• Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12</li> <li>• Multiplies basic facts to 10 x 10 vertically</li> <li>• Adds 1-digit numbers with sums to 18 (with parentheses)</li> <li>• Recognizes addition and subtraction fact families through 18</li> <li>• Solves basic-facts open sentences - addition and subtraction</li> <li>• Solves basic facts open sentences - multiplication and division</li> <li>• Determines the operation needed from a simple problem</li> <li>• Writes a number sentence for a simple problem solving situation</li> <li>• Counts by 2's to 100</li> <li>• Writes equivalent forms of whole number expressions (e.g., <math>15 + 5 = 10 + 10</math>)</li> </ul>	<p><b>Represent and Solve Problems</b></p> <ul style="list-style-type: none"> <li>• Uses rounding to estimate answers to real-world problems involving addition of numbers less than 100 (whole numbers only)</li> <li>• Instantly recalls basic addition facts with sums to 18 in a table</li> <li>• Solves real-world whole number addition problems with sums to 20 (result unknown) - with extraneous information given</li> <li>• Solves real-world whole number addition problems with sums to 100 (result unknown)</li> <li>• Instantly recalls basic subtraction facts with minuend less than 10</li> <li>• Solves real-world whole number problems involving subtraction with numbers under 20</li> <li>• Solves real-world whole number problems involving subtraction with numbers 100 and under</li> <li>• Solves real-world whole number problems involving subtraction with numbers under 1000</li> <li>• Solves problems using the inverse relationship between addition and subtraction</li> <li>• Uses counting by multiples for multiplication</li> <li>• Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12</li> <li>• Multiplies basic facts to 10 x 10 vertically</li> <li>• Solves word problems involving basic whole number multiplication facts to 10 x 10</li> <li>• Uses manipulatives to divide a small set of objects into groups of equal size</li> <li>• Uses sharing for division</li> <li>• Models whole number multiplication and division algorithms (e.g., shows multiplication as repeated addition and division as repeated subtraction)</li> <li>• Models multiplication and division algorithms using arrays (whole numbers)</li> <li>• Instantly recalls division facts with dividend and divisors less than 10</li> <li>• Solves real-world whole number problems involving addition and subtraction</li> <li>• Recognizes addition and subtraction fact families through 18</li> <li>• Demonstrates an understanding of the zero property of multiplication</li> <li>• Demonstrates an understanding of the inverse relationship between multiplication and division</li> <li>• Solves basic facts addition and subtraction open sentences using diagrams and models (e.g., using balances)</li> <li>• Solves 1-step open sentences with missing addends (numbers 100 and under)</li> </ul>	<p><b>Represent and Solve Problems</b></p> <ul style="list-style-type: none"> <li>• Uses rounding to estimate answers to real-world problems involving numbers less than 1000 with addition and subtraction (whole numbers only)</li> <li>• Solves real-world whole number addition problems with sums to 20 (result unknown) - with extraneous information given</li> <li>• Solves real-world whole number addition problems with sums to 20 (change unknown)</li> <li>• Solves real-world whole number problems involving subtraction with numbers 100 and under</li> <li>• Solves real-world whole number problems involving subtraction with numbers under 1000</li> <li>• Solves whole number subtraction word problems with numbers over 1000</li> <li>• Solves problems using the inverse relationship between addition and subtraction</li> <li>• Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12</li> <li>• Solves word problems involving basic whole number multiplication facts to 10 x 10</li> <li>• Solves word problems involving whole number multiplication with numbers greater than 10 x 10</li> <li>• Uses manipulatives to divide a small set of objects into groups of equal size</li> <li>• Models whole number multiplication and division algorithms (e.g., shows multiplication as repeated addition and division as repeated subtraction)</li> <li>• Instantly recalls division facts with dividend and divisors less than 10</li> <li>• Instantly recalls division facts with dividend and divisors less than 13</li> <li>• Solves word problems with whole number division facts with dividend and divisors less than 11</li> <li>• Solves simple word problems involving whole number division with remainder (e.g., 1-step, 1-digit divisor)</li> <li>• Evaluates numerical expressions using grouping symbols (whole numbers only)</li> <li>• Demonstrates an understanding of the commutative property of multiplication with simple problems</li> <li>• Demonstrates an understanding of the zero property of multiplication</li> <li>• Uses algebraic reasoning to solve problems involving equality relationships</li> <li>• Solves 1-step open sentences with missing addends (numbers 100 and under)</li> </ul>

#### Explanatory Notes

\* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

Skills and Concepts to Enhance (73% Probability*) 171 - 180	Skills and Concepts to Develop (50% Probability*) 181 - 190	Skills and Concepts to Introduce (27% Probability*) 191 - 200
Represent and Solve Problems	Represent and Solve Problems <ul style="list-style-type: none"> <li>• Determines the operation needed from a simple problem</li> <li>• Writes a number sentence for a simple problem solving situation</li> <li>• Interprets a chart or table - calculation required</li> <li>• Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., <math>14 = 7 + 7</math>)</li> <li>• Distinguishes between odd and even numbers</li> </ul>	Represent and Solve Problems <ul style="list-style-type: none"> <li>• Solves simple open sentences with missing factors (numbers 100 and under)</li> <li>• Solves 2-step open sentences with missing addends</li> <li>• Determines the operation needed from a simple problem</li> <li>• Translates a 1-step problem to a symbolic expression or equation</li> <li>• Interprets a chart or table - calculation required</li> <li>• Solves problems using tables</li> <li>• Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., <math>14 = 7 + 7</math>)</li> <li>• Distinguishes between odd and even numbers</li> </ul>
Analyze Patterns and Relationships <ul style="list-style-type: none"> <li>• Extends a growing arithmetic pattern, defined by numbers</li> <li>• Analyzes a growing, arithmetic pattern with numbers to determine the rule</li> </ul>	Analyze Patterns and Relationships <ul style="list-style-type: none"> <li>• Extends a growing arithmetic pattern, defined by numbers</li> <li>• Analyzes a growing, arithmetic pattern with numbers to determine the rule</li> </ul>	Analyze Patterns and Relationships <ul style="list-style-type: none"> <li>• Extends a growing arithmetic pattern, defined by objects or diagrams</li> <li>• Analyzes a growing, arithmetic pattern with numbers to determine the rule</li> <li>• Completes a simple function table based on real-life situations (e.g., the number of tricycles related to the number of wheels)</li> <li>• Identifies numbers as composite</li> </ul>
<i>New Vocabulary:</i> fact family	<i>New Vocabulary:</i> gave, left, row, unifix cubes	<i>New Vocabulary:</i> composite number, each, prime number
<i>New Signs and Symbols:</i> ( ) order of operations,   tally mark	<i>New Signs and Symbols:</i> ÷ division, long division symbol	<i>New Signs and Symbols:</i> °F degrees Fahrenheit, \$ dollar sign, lb pound

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