

# Math DesCartes: Estimation and Accurate Computations

## Skills: Whole Numbers – Addition and Subtraction

Students:	DesCartes Skills: (Highlight the skills related to your chosen standard/concept)
	<b>RIT 231-240:</b> <ul style="list-style-type: none"> <li>Models algorithms using place value concepts (addition and subtraction with whole numbers)</li> </ul>
	<b>RIT 221-230:</b> <ul style="list-style-type: none"> <li>Predicts the relative size of the answer when adding whole numbers</li> <li>Predicts the relative size of the answer when subtracting whole numbers</li> <li>Models algorithms using place value concepts (addition and subtraction with whole numbers)</li> </ul>
	<b>RIT 211-220:</b> <ul style="list-style-type: none"> <li>Subtracts numbers with 5-digits or more, with regrouping</li> <li>Uses strategies to determine 2 or more missing digits (addition/subtraction only)</li> <li>Uses reasoning strategies to solve magic squares and related puzzles (addition/subtraction only)</li> <li>Predicts the relative size of the answer when adding whole numbers</li> <li>Predicts the relative size of the answer when subtracting whole numbers</li> </ul>
	<b>RIT 201-210:</b> <ul style="list-style-type: none"> <li>Instantly recalls basic addition facts with sums to 18 in a table</li> <li>Adds multiple-digit numbers, with sums under 1000</li> <li>Adds multiple-digit numbers, with regrouping, with sums over 1000</li> <li>Subtracts 3- or 4-digit numbers, with regrouping</li> <li>Subtracts numbers with 5-digits or more, with regrouping</li> <li>Uses strategies to determine 2 or more missing digits (addition/subtraction only)</li> <li>Uses number sense strategies to solve problems (addition/subtraction only)</li> <li>Uses reasoning strategies to solve magic squares and related puzzles (addition/subtraction only)</li> <li>Performs mental computation with more than 4 addends</li> <li>Performs mental subtraction with numbers 1000 and over</li> <li>Solves real-world whole number addition problems with sums to 100 (start unknown)</li> <li>Solves real-world whole number problems involving subtraction with numbers 100 and under (analysis)</li> <li>Solves whole number subtraction word problems with numbers over 1000</li> <li>Adds and subtracts whole numbers using place value</li> </ul>
	<b>RIT 191-200:</b> <ul style="list-style-type: none"> <li>Adds 2-digit to 3-digit number, with regrouping</li> <li>Adds multiple-digit numbers, with sums under 1000</li> <li>Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000</li> <li>Adds multiple-digit numbers, with regrouping, with sums over 1000</li> <li>Subtracts 1-digit number from a 2-digit number, with regrouping</li> <li>Subtracts s 2-digit number from a 2-digit number, with regrouping</li> <li>Subtracts a 2-digit number from a 3-digit number with a single regrouping</li> <li>Subtracts multiple-digit numbers, with no regrouping</li> <li>Subtracts 3- or 4-digit numbers, with regrouping</li> <li>Uses strategies for sums and differences</li> </ul>

<p>with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on)</p> <ul style="list-style-type: none"> <li>Solves problems using the inverse relationship between addition and subtraction</li> <li>Uses number sense strategies to judge the reasonableness of given answers (addition/subtraction only)</li> <li>Performs mental subtraction with numbers under 1000</li> <li>Performs mental subtraction with numbers 1000 and over</li> <li>Solves real-world whole number addition problems with sums to 20 (result unknown) - analysis</li> <li>Solves real-world whole number addition problems with sums to 100 (start 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 addition word problems with sums over 1000</li> <li>Solves whole number subtraction word problems with numbers over 1000</li> <li>Adds and subtracts whole numbers using place value</li> </ul>
<b>RIT 181-190:</b> <ul style="list-style-type: none"> <li>Adds 1-digit to multiple-digit number, with regrouping</li> <li>Adds two or three 2-digit numbers, with regrouping</li> <li>Adds 2-digit to 3-digit number, with regrouping</li> <li>Adds 3-digit numbers, with regrouping, with sums under 1000</li> <li>Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000</li> <li>Adds multiple-digit numbers, with regrouping, with sums over 1000</li> <li>Subtracts 1-digit number from a 2-digit number, with regrouping</li> <li>Subtracts a 1-digit number from a multiple-digit number</li> <li>Subtracts 2- and/or 3-digit numbers with no regrouping</li> <li>Subtracts s 2-digit number from a 2-digit number, with regrouping</li> <li>Instantly recalls basic subtraction facts with minuend less than 10</li> <li>Subtracts multiple-digit numbers, with no regrouping</li> <li>Subtracts 3- or 4-digit numbers, with regrouping</li> <li>Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on)</li> <li>Performs mental computation with 2, 3, or 4 addends</li> <li>Performs mental subtraction with numbers under 1000</li> <li>Solves real-world whole number addition problems with sums to 20 (result unknown) - analysis</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>Solves real-world whole number addition problems with sums to 1000</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> </ul>

# Math DesCartes: Estimation and Accurate Computations

## Skills: Whole Numbers – Addition and Subtraction

	<ul style="list-style-type: none"> <li>Solves real-world whole number problems involving subtraction with numbers under 1000</li> <li>Solves real-world whole number problems involving addition and subtraction</li> </ul>
	<p><b>RIT 171-180:</b></p> <ul style="list-style-type: none"> <li>Adds 1-digit numbers with sums to 18 (with parentheses)</li> <li>Adds 2-digit to 3-digit number, with no regrouping, with sums under 1000</li> <li>Adds 3-digit numbers, with no regrouping</li> <li>Adds two or three 2-digit numbers, with regrouping</li> <li>Adds 3-digit numbers, with regrouping, with sums under 1000</li> <li>Adds 1-, 2-, and/or 3-digit numbers, with sums under 100</li> <li>Adds multiple-digit numbers, with no regrouping, with sums over 1000</li> <li>Subtracts two whole numbers, with the minuend between 9 and 19, horizontally</li> <li>Subtracts a 1-digit number from a 2-digit number, with no regrouping, vertically</li> <li>Subtracts a 1-digit number from a multiple-digit number</li> <li>Subtracts a 2-digit number from a 2-digit number, with no regrouping</li> <li>Subtracts 2- and/or 3-digit numbers with no regrouping</li> <li>Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens)</li> <li>Uses strategies for subtraction facts (e.g., counting back, one less, two less)</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 20 (change unknown)</li> <li>Solves real-world whole number addition problems with sums to 100 (result unknown)</li> <li>Solves real-world whole number addition problems with sums to 1000</li> <li>Solves real-world whole number problems involving subtraction with numbers under 20</li> </ul>
	<p><b>RIT 161-170:</b></p> <ul style="list-style-type: none"> <li>Adds two 1-digit numbers with sums to 10 in horizontal format</li> <li>Adds two 1-digit numbers with sums between 10 and 19 in horizontal format</li> <li>Adds two 1-digit numbers with sums to 10 in vertical format</li> <li>Adds two 1-digit numbers with sums between 10 and 19 in vertical format</li> <li>Adds multiple 1-digit numbers</li> <li>Adds 1-digit to multiple-digit number with no regrouping</li> <li>Adds 2-digit numbers with no regrouping</li> <li>Adds 2-digit to 3-digit number, with no regrouping, with sums under 1000</li> <li>Subtracts two 1-digit numbers horizontally</li> <li>Subtracts two whole numbers, with the minuend between 9 and 19, horizontally</li> <li>Subtracts two 1-digit numbers vertically</li> <li>Subtracts a 2-digit number from a 2-digit number, with no regrouping</li> <li>Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens)</li> <li>Uses strategies for subtraction facts (e.g., counting back, one less, two less)</li> <li>Solves real-world whole number addition problems with sums to 20 (result unknown)</li> </ul>
	<p><b>RIT Below 161:</b></p> <ul style="list-style-type: none"> <li>Adds two 1-digit numbers with sums to 10 in horizontal format</li> </ul>

**Lesson Title:**

**Standard/Concept for All:**

**For Students Ready for a Challenge:**

Lesson/Activity:

Resources:

Means of Assessment:

**For Most Students:**

Lesson/Activity:

Resources:

Means of Assessment:

**For Students Needing Extra Support:**

Lesson/Activity:

Resources:

Means of Assessment:

**Closure/Summary for All:**

