

## Operations and Algebraic Thinking

Indicator: Knows multiplication and division facts fluently				
Standard: 4.OA.4				
Performance Level	1	2	3	4
Trimester 1	<p>Recalls from memory, with automaticity, few:</p> <ul style="list-style-type: none"> <li>• Multiplication and division facts within 100 (fewer than 13 problems/ 1 minute)</li> <li>• Find all factor pairs for a whole number in the range 1-100</li> <li>• Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>• Determine if a whole number, 1-100, is prime or composite</li> </ul>	<p>Recalls from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>• Multiplication and division facts within 100 (13-16 problems/ 1 minute)</li> <li>• Find all factor pairs for a whole number in the range 1-100</li> <li>• Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>• Determine if a whole number, 1-100, is prime or composite</li> </ul>	<p>Consistently able to recall from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>• Multiplication and division facts within 100 (17-20 problems/ 1 minute)</li> <li>• Find all factor pairs for a whole number in the range 1-100</li> <li>• Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>• Determine if a whole number, 1-100, is prime or composite</li> </ul>	<p>Consistently, accurately and independently able to recall from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>• All multiplication and division facts within 144 (&gt;20 problems/ 1 minute)</li> <li>• Identify all of the common factors and the greatest common factor of two or more whole numbers</li> <li>• Identify the first twelve multiples and the least common multiple of two or more numbers</li> <li>• Apply knowledge of factors and multiples to solve multi-step problems</li> </ul>
Trimester 2	<p>Recalls from memory, with automaticity, few:</p> <ul style="list-style-type: none"> <li>• Multiplication and division facts within 100</li> </ul>	<p>Recalls from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>• Multiplication and division facts within 100</li> </ul>	<p>Consistently able to recall from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>• Multiplication and division facts within 100</li> </ul>	<p>Consistently, accurately and independently able to recall from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>• All multiplication and division facts within 144 (&gt;20 problems/ 1 minute)</li> </ul>

	<p>(fewer than 13 problems/ 1 minute)</p> <ul style="list-style-type: none"> <li>Find all factor pairs for a whole number in the range 1-100</li> <li>Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>Determine if a whole number, 1-100, is prime or composite</li> </ul>	<p>(13-16 problems/ 1 minute)</p> <ul style="list-style-type: none"> <li>Find all factor pairs for a whole number in the range 1-100</li> <li>Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>Determine if a whole number, 1-100, is prime or composite</li> </ul>	<p>(17-20 problems/ 1 minute)</p> <ul style="list-style-type: none"> <li>Find all factor pairs for a whole number in the range 1-100</li> <li>Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>Determine if a whole number, 1-100, is prime or composite</li> </ul>	<ul style="list-style-type: none"> <li>Identify all of the common factors and the greatest common factor of two or more whole numbers</li> <li>Identify the first twelve multiples and the least common multiple of two or more numbers</li> <li>Apply knowledge of factors and multiples to solve multi-step problems</li> </ul>
Trimester 3	<p>Recalls from memory, with automaticity, few:</p> <ul style="list-style-type: none"> <li>Multiplication and division facts within 100</li> </ul> <p>(fewer than 13 problems/ 1 minute)</p> <ul style="list-style-type: none"> <li>Find all factor pairs for a whole number in the range 1-100</li> <li>Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> </ul>	<p>Recalls from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>Multiplication and division facts within 100</li> </ul> <p>(13-16 problems/ 1 minute)</p> <ul style="list-style-type: none"> <li>Find all factor pairs for a whole number in the range 1-100</li> <li>Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> </ul>	<p>Consistently able to recall from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>Multiplication and division facts within 100</li> </ul> <p>(17-20 problems/ 1 minute)</p> <ul style="list-style-type: none"> <li>Find all factor pairs for a whole number in the range 1-100</li> <li>Determine whether a whole number, 1-100, is a multiple of a given one-digit number</li> <li>Determine if a whole number, 1-100, is prime or composite</li> </ul>	<p>Consistently, accurately and independently able to recall from memory, with automaticity:</p> <ul style="list-style-type: none"> <li>All multiplication and division facts within 144 (&gt;20 problems/ 1 minute)</li> </ul> <ul style="list-style-type: none"> <li>Identify all of the common factors and the greatest common factor of two or more whole numbers</li> <li>Identify the first twelve and the least common multiple of two or more numbers</li> <li>Apply knowledge of factors and multiples to solve multi-step problems</li> </ul>

	<ul style="list-style-type: none"> <li>Determine if a whole number, 1-100, is prime or composite</li> </ul>	<ul style="list-style-type: none"> <li>Determine if a whole number, 1-100, is prime or composite</li> </ul>		
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Indicator: Interprets and solves word problems				
Standard: 4.OA.1, 4.OA.2, 4.OA.3				
Performance Level	1	2	3	4
Trimester 1	<p>Unable to:</p> <ul style="list-style-type: none"> <li>Interpret a one-step word problem involving whole numbers</li> <li>Solve the problems accurately and efficiently in all four operations</li> <li>Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>Interpret a one-step word problem involving whole numbers</li> <li>Solve the problems accurately and efficiently in all four operations</li> <li>Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>Interpret a one-step word problem involving whole numbers</li> <li>Solve the problems accurately and efficiently in all four operations</li> <li>Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>Interpret and solve multi-step word problems involving the four operations</li> <li>Justify the reasonableness of a response using words, models, and equations</li> </ul>
Trimester 2	<p>Unable to:</p> <ul style="list-style-type: none"> <li>Interpret a multi-step word problem involving whole numbers</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>Interpret a multi-step word problem involving whole numbers</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>Interpret a multi-step word problem involving whole numbers</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>Interpret and solve multi-step word problems involving the four operations</li> <li>Justify the reasonableness of a</li> </ul>

	<ul style="list-style-type: none"> <li>• Solve the problems accurately and efficiently in all four operations</li> <li>• Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve the problems accurately and efficiently in all four operations</li> <li>• Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve the problems accurately and efficiently in all four operations</li> <li>• Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>response using words, models, and equations</p>
Trimester 3	<p>Unable to:</p> <ul style="list-style-type: none"> <li>• Interpret a multi-step word problem involving whole numbers</li> <li>• Solve the problems accurately and efficiently in all four operations</li> <li>• Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>• Interpret a multi-step word problem involving whole numbers</li> <li>• Solve the problems accurately and efficiently in all four operations</li> <li>• Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>• Interpret a multi-step word problem involving whole numbers</li> <li>• Solve the problems accurately and efficiently in all four operations</li> <li>• Use strategies that <b>may</b> include equations, models, diagrams, etc.</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>• Interpret and solve multi-step word problems involving the four operations</li> <li>• Justify the reasonableness of a response using words, models, and equations.</li> </ul>

## Numbers and Operations in Base 10

Indicator: Demonstrates understanding of place value				
Standard: 4.NBT.1, 4.NBT.2, 4.NBT.3				
Performance Level	1	2	3	4
Trimester 1	<p>Unable to:</p> <ul style="list-style-type: none"> <li>• Read and write numbers to 100,000 using standard form, word form and expanded form</li> <li>• Use place value understanding to round, estimate and compare whole numbers up to 100,000</li> <li>• Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>• Relate place value to mathematical computations</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>• Read and write numbers to 100,000 using standard form, word form and expanded form</li> <li>• Use place value understanding to round, estimate and compare whole numbers up to 100,000</li> <li>• Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>• Relate place value to mathematical computations</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>• Read and write numbers to 100,000 using standard form, word form and expanded form</li> <li>• Use place value understanding to round, estimate and compare whole numbers up to 100,000</li> <li>• Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>• Relate place value to mathematical computations</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>• Extend to include numbers beyond 1,000,000</li> <li>• Explain and justify the role of place value to mathematical computation using multiple strategies</li> </ul>

Trimester 2	<p>Unable to:</p> <ul style="list-style-type: none"> <li>● Read and write numbers to 1,000,000 using standard form, word form and expanded form</li> <li>● Use place value understanding to round, estimate and compare whole numbers up to 1,000,000</li> <li>● Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>● Relate place value to mathematical computations</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>● Read and write numbers to 1,000,000 using standard form, word form and expanded form</li> <li>● Use place value understanding to round, estimate and compare whole numbers up to 1,000,000</li> <li>● Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>● Relate place value to mathematical computations</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>● Read and write numbers to 1,000,000 using standard form, word form and expanded form</li> <li>● Use place value understanding to round, estimate and compare whole numbers up to 1,000,000</li> <li>● Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>● Relate place value to mathematical computations</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>● Extend to include numbers beyond 1,000,000</li> <li>● Explain and justify the role of place value to mathematical computation using multiple strategies</li> </ul>
Trimester 3	<p>Unable to:</p> <ul style="list-style-type: none"> <li>● Read and write numbers to 1,000,000 using standard form, word form and expanded form</li> <li>● Use place value understanding to round,</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>● Read and write numbers to 1,000,000 using standard form, word form and expanded form</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>● Read and write numbers to 1,000,000 using standard form, word form and expanded form</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>● Extend to include numbers beyond 1,000,000</li> <li>● Explain and justify the role of place value to mathematical computation using multiple strategies</li> </ul>

	<p>estimate and compare whole numbers up to 1,000,000</p> <ul style="list-style-type: none"> <li>Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>Relate place value to mathematical computations</li> </ul>	<ul style="list-style-type: none"> <li>Use place value understanding to round, estimate and compare whole numbers up to 1,000,000</li> <li>Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>Relate place value to mathematical computations</li> </ul>	<ul style="list-style-type: none"> <li>Use place value understanding to round, estimate and compare whole numbers up to 1,000,000</li> <li>Recognize that in a multi-digit number, a digit in one place represents ten times what it represents in the place to its right</li> <li>Relate place value to mathematical computations</li> </ul>	
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Indicator: Performs operations with multi-digit whole numbers				
Standard: 4.NBT.4, 4.NBT.5, 4.NBT.6				
Performance Level	1	2	3	4
Trimester 1	<p>Unable to add and subtract with multi-digit <b>whole numbers</b> involving:</p> <ul style="list-style-type: none"> <li>Addition and subtraction within 100,000</li> <li>Use of the standard algorithm</li> <li>Use of strategies that <b>may</b> include strategies based on place value, properties of</li> </ul>	<p>Requires teacher prompting and support to add and subtract with multi-digit <b>whole numbers</b> involving:</p> <ul style="list-style-type: none"> <li>Addition and subtraction within 100,000</li> <li>Use of the standard algorithm</li> <li>Use of strategies that <b>may</b> include strategies based on place value, properties of</li> </ul>	<p>Independently adds and subtracts with multi-digit <b>whole numbers</b> involving:</p> <ul style="list-style-type: none"> <li>Addition and subtraction within 100,000</li> <li>Use of the standard algorithm</li> <li>Use of strategies that <b>may</b> include strategies</li> </ul>	<p>Consistently, accurately and independently performs operations with multi-digit whole numbers involving:</p> <ul style="list-style-type: none"> <li>Addition and subtraction beyond 100,000</li> <li>Use of the standard algorithm</li> </ul>

	<p>operations and/or the relationship between addition and subtraction</p> <ul style="list-style-type: none"> <li>• Ability to illustrate calculation with a drawing or model</li> </ul>	<p>operations and/or the relationship between addition and subtraction</p> <ul style="list-style-type: none"> <li>• Ability to illustrate calculation with a drawing or model</li> </ul> <p>Student may be able to independently perform operations on smaller numbers beyond basic facts.</p>	<p>based on place value, properties of operations and/or the relationship between addition and subtraction</p> <ul style="list-style-type: none"> <li>• Ability to illustrate calculation with a drawing or model</li> </ul>	<ul style="list-style-type: none"> <li>• Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>• Division of up to four-digit whole number dividends by one –digit divisors</li> <li>• Use of strategies that may include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>• Ability to illustrate calculation with a drawing or model (array, area model)</li> <li>• Use multiple strategies to solve problems</li> </ul>
Trimester 2	<p>Unable to perform operations with multi-digit <b>whole</b> numbers involving:</p> <ul style="list-style-type: none"> <li>• Addition and subtraction</li> </ul>	<p>Requires teacher prompting and support to perform operations with multi-digit <b>whole</b> numbers involving:</p> <ul style="list-style-type: none"> <li>• Addition and subtraction</li> </ul>	<p>Independently performs operations with multi-digit <b>whole</b> numbers involving:</p> <ul style="list-style-type: none"> <li>• Addition and</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>• Extend to include larger numbers</li> </ul>



	<p>within 100,000</p> <ul style="list-style-type: none"> <li>● Use of the standard algorithm</li> <li>● Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>● Division of up to four-digit whole number dividends by one –digit divisors</li> <li>● Use of strategies that <b>may</b> include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>● Ability to illustrate calculation with a drawing or model (array, area model)</li> </ul>	<p>within 100,000</p> <ul style="list-style-type: none"> <li>● Use of the standard algorithm</li> <li>● Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>● Division of up to four-digit whole number dividends by one –digit divisors</li> <li>● Use of strategies that <b>may</b> include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>● Ability to illustrate calculation with a drawing or model (array, area model)</li> </ul> <p>Student may be able to independently perform operations on smaller numbers beyond basic facts.</p>	<p>subtraction within 100,000</p> <ul style="list-style-type: none"> <li>● Use of the standard algorithm</li> <li>● Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>● Division of up to four-digit whole number dividends by one –digit divisors</li> <li>● Use of strategies that <b>may</b> include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>● Ability to illustrate calculation with a drawing or model (array, area model)</li> </ul>	<ul style="list-style-type: none"> <li>● Use multiple strategies to solve problems</li> </ul>
Trimester 3	<p>Unable to perform operations with multi-digit <b>whole</b> numbers involving:</p> <ul style="list-style-type: none"> <li>● Addition and subtraction</li> </ul>	<p>Requires teacher prompting and support to perform operations with multi-digit <b>whole</b> numbers involving:</p> <ul style="list-style-type: none"> <li>● Addition and subtraction</li> </ul>	<p>Independently performs operations with multi-digit <b>whole</b> numbers involving:</p> <ul style="list-style-type: none"> <li>● Addition and subtraction</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>● Extend to include larger numbers</li> </ul>

	<p>within 1,000,000</p> <ul style="list-style-type: none"> <li>● Use of the standard algorithm</li> <li>● Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>● Division of up to four-digit whole number dividends by one –digit divisors</li> <li>● Use of strategies that <b>may</b> include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>● Ability to illustrate calculation with a drawing or model (array, area model)</li> </ul>	<p>within 1,000,000</p> <ul style="list-style-type: none"> <li>● Use of the standard algorithm</li> <li>● Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>● Division of up to four-digit whole number dividends by one –digit divisors</li> <li>● Use of strategies that <b>may</b> include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>● Ability to illustrate calculation with a drawing or model (array, area model)</li> </ul> <p>Student may be able to independently perform operations on smaller numbers beyond basic facts.</p>	<p>within 1,000,000</p> <ul style="list-style-type: none"> <li>● Use of the standard algorithm</li> <li>● Multiplication of 4-digit whole numbers by 1-digit whole number and two-digit by two-digit numbers</li> <li>● Division of up to four-digit whole number dividends by one –digit divisors</li> <li>● Use of strategies that <b>may</b> include strategies and algorithms based on place value, properties of operations and/or the relationship between addition/subtraction, multiplication/division</li> <li>● Ability to illustrate calculation with a drawing or model (array, area model)</li> </ul>	<ul style="list-style-type: none"> <li>● Use multiple strategies to solve problems</li> </ul>
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## Number Sense and Operations-Fractions

Indicator: Demonstrates understanding of fractions				
Standard: 4.NF.1, 4.NF.2,4.NF.3, 4.NF.3b				
Performance Level	1	2	3	4
Trimester 1				
Trimester 2	Unable to: <ul style="list-style-type: none"> <li>Identify equivalent fractions</li> <li>Decompose a fraction into a sum of fractions with the same denominator in more than one way</li> <li>Compare two fractions with different numerators and denominators using models and drawings</li> <li>Compare two fractions using equations with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	Requires teacher prompting and support to: <ul style="list-style-type: none"> <li>Identify equivalent fractions</li> <li>Decompose a fraction into a sum of fractions with the same denominator in more than one way</li> <li>Compare two fractions with different numerators and denominators using models and drawings</li> <li>Compare two fractions using equations with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul> Student may be able to compare fractions with like denominators	Independently able to: <ul style="list-style-type: none"> <li>Identify equivalent fractions</li> <li>Decompose a fraction into a sum of fractions with the same denominator in more than one way</li> <li>Compare two fractions with different numerators and denominators using models and drawings</li> <li>Compare two fractions using equations with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to: <ul style="list-style-type: none"> <li>Compare and order multiple fractions and mixed numbers presented with different numerators and denominators</li> <li>Demonstrate understanding with <b>multiple models and equations</b></li> </ul>
Trimester 3	Unable to: <ul style="list-style-type: none"> <li>Identify equivalent</li> </ul>	Requires teacher prompting and support to: <ul style="list-style-type: none"> <li>Identify equivalent</li> </ul>	Independently able to: <ul style="list-style-type: none"> <li>Identify equivalent</li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to:

	<p>fractions</p> <ul style="list-style-type: none"> <li>Decompose a fraction into a sum of fractions with the same denominator in more than one way</li> <li>Compare two fractions with different numerators and denominators using models and drawings</li> <li>Compare two fractions using equations with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	<p>fractions</p> <ul style="list-style-type: none"> <li>Decompose a fraction into a sum of fractions with the same denominator in more than one way</li> <li>Compare two fractions with different numerators and denominators using models and drawings</li> <li>Compare two fractions using equations with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul> <p>Student may be able to compare fractions with like denominators</p>	<p>fractions</p> <ul style="list-style-type: none"> <li>Decompose a fraction into a sum of fractions with the same denominator in more than one way</li> <li>Compare two fractions with different numerators and denominators using models and drawings</li> <li>Compare two fractions using equations with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	<ul style="list-style-type: none"> <li>Compare and order multiple fractions and mixed numbers presented with different numerators and denominators</li> <li>Demonstrate understanding with <b>multiple models and equations</b></li> </ul>
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Indicator: Solves problems involving operations with fractions				
Standard: 4.NF.3, 4.NF.3a, 4.NF.3c, 4.NF.3d, 4.NF.4, 4.NF.4a, 4.NF.4b, 4.NF.4c				
Performance Level	1	2	3	4
Trimester 1				
Trimester 2	<p>Unable to:</p> <ul style="list-style-type: none"> <li>Add and subtract fractions and mixed numbers with like</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>Add and subtract fractions and mixed numbers with like</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>Add and subtract fractions and mixed numbers with like</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>Add and subtract fractions and mixed numbers with <b>unlike</b> denominators</li> </ul>

	<p>denominators</p> <ul style="list-style-type: none"> <li>● Multiply a fraction by a whole number</li> <li>● Use visual fraction model (area model, number line, etc.)and equations to represent the problem</li> </ul>	<p>denominators</p> <ul style="list-style-type: none"> <li>● Multiply a fraction by a whole number</li> <li>● Use a visual fraction model (area model, number line, etc.)and equations to represent the problem</li> </ul>	<p>denominators</p> <ul style="list-style-type: none"> <li>● Multiply a fraction by a whole number</li> <li>● Use a visual fraction model (area model, number line, etc.)and equations to represent the problem</li> </ul>	<ul style="list-style-type: none"> <li>● Consistently reduce fractions to simplest form</li> <li>● Demonstrate understanding with <b>multiple models and equations</b></li> </ul>
Trimester 3	<p>Unable to:</p> <ul style="list-style-type: none"> <li>● Add and subtract fractions and mixed numbers with like denominators</li> <li>● Multiply a fraction by a whole number</li> <li>● Use visual fraction model (area model, number line, etc.)and equations to represent the problem</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>● Add and subtract fractions and mixed numbers with like denominators</li> <li>● Multiply a fraction by a whole number</li> <li>● Use a visual fraction model (area model, number line, etc.)and equations to represent the problem</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>● Add and subtract fractions and mixed numbers with like denominators</li> <li>● Multiply a fraction by a whole number</li> <li>● Use a visual fraction model (area model, number line, etc.)and equations to represent the problem</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>● Add and subtract fractions and mixed numbers with <b>unlike</b> denominators</li> <li>● Ddemonstrate understanding with <b>multiple models and equations</b></li> </ul>

Indicator: Demonstrate understanding of decimals

Standard: 4.NF.5, 4.NF.6, 4.NF.7				
Performance Level	1	2	3	4
Trimester 1				
Trimester 2				
Trimester 3	<p>Unable to:</p> <ul style="list-style-type: none"> <li>• Write decimal equivalents for fractions with denominators of 10 or 100</li> <li>• Compare two decimals to the hundredths place referring to the same whole with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>• Write decimal equivalents for fractions with denominators of 10 or 100</li> <li>• Compare two decimals to the hundredths place referring to the same whole with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>• Write decimal equivalents for fractions with denominators of 10 or 100</li> <li>• Compare two decimals to the hundredths place referring to the same whole with proper mathematical symbols, <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>• Extend understanding to include decimals to the thousandths place</li> <li>• Compare and order multiple decimals and fractions</li> <li>• Write a given decimal in multiple ways using place value (i.e. 2.048 can be 2 and 48 thousandths or 1 and 10 tenths and 4 hundredths)</li> <li>• Justify equivalencies and comparisons with visual models</li> </ul>

## Measurement and Data

Indicator: Uses the four operations to solve problems involving measurement				
Standard: 4.MD.1, 4.MD.2, 4.MD.3, 4.MD.7				
Performance Level	1	2	3	4
Trimester 1				
Trimester 2				
Trimester 3	<p>Unable to:</p> <ul style="list-style-type: none"> <li>• Measure attributes of objects in the customary and metric systems to the nearest <math>\frac{1}{4}</math>"</li> <li>• Make measurement conversions within one system of measurement (ft, in; km,m, cm; kg,g; lb, oz; l, ml; hr, min, sec)</li> <li>• Solve problems involving time intervals, distance, liquid volumes, masses of objects and money</li> <li>• Solve problems involving area and perimeter formulas</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>• Measure attributes of objects in the customary and metric systems to the nearest <math>\frac{1}{4}</math>"</li> <li>• Make measurement conversions within one system of measurement (ft, in; km,m, cm; kg,g; lb, oz; l, ml; hr, min, sec)</li> <li>• Solve problems involving time intervals, distance, liquid volumes, masses of objects and money</li> <li>• Solve problems involving area and perimeter formulas</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>• Measure attributes of objects in the customary and metric systems to the nearest <math>\frac{1}{4}</math>"</li> <li>• Make measurement conversions within one system of measurement (ft, in; km,m, cm; kg,g; lb, oz; l, ml; hr, min, sec)</li> <li>• Solve problems involving time intervals, distance, liquid volumes, masses of objects and money</li> <li>• Solve problems involving area and perimeter formulas</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate multiple equivalences among conversions (6kg 9 g= 6,009g=5kg 1,009g)</li> <li>• Justify the reasonableness of a response using words, models, and equations</li> </ul>

	for rectangles <ul style="list-style-type: none"> <li>Solve problems involving area and perimeter with an unknown (i.e. unknown length of a side)</li> </ul>	for rectangles <ul style="list-style-type: none"> <li>Solve problems involving area and perimeter with an unknown (i.e. unknown length of a side)</li> </ul>	for rectangles <ul style="list-style-type: none"> <li>Solve problems involving area and perimeter with an unknown (i.e. unknown length of a side)</li> </ul>	
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Indicator: Organizes, represents and interprets data				
Standard: 4.MD.4				
Performance Level	1	2	3	4
Trimester 1				
Trimester 2				
Trimester 3	Unable to:  <ul style="list-style-type: none"> <li>Represent data on a table or graph</li> <li>Represent data on a line plot in fractions of a unit (<math>1/2</math>, <math>1/4</math>, <math>1/8</math>)</li> <li>Read data from a line plot to solve problems</li> </ul>	Requires teacher prompting and support to:  <ul style="list-style-type: none"> <li>Represent data on a table or graph</li> <li>Represent data on a line plot in fractions of a unit (<math>1/2</math>, <math>1/4</math>, <math>1/8</math>)</li> <li>Read data from a line plot to solve problems</li> </ul>	Independently able to:  <ul style="list-style-type: none"> <li>Represent data on a table or graph</li> <li>Represent data on a line plot in fractions of a unit (<math>1/2</math>, <math>1/4</math>, <math>1/8</math>)</li> <li>Read data from a line plot to solve problems</li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to:  <ul style="list-style-type: none"> <li>Always present data with a title, key, and labels</li> <li>Generate and answer multi-step questions from table/graph/line plot</li> </ul>



## Geometry

Indicator: Demonstrates understanding of two-dimensional figures				
Standard: 4.MD.5, 4.MD.6, 4.G.1, 4.G.2, 4.G.3				
Performance Level	1	2	3	4
Trimester 1				
Trimester 2	Unable to: <ul style="list-style-type: none"> <li>Recognize and draw a point, angle, line, line segment, and ray</li> <li>Measure angles with protractors</li> <li>Solve problems involving addition and subtraction to find unknown angles on a diagram</li> </ul>	Requires teacher prompting and support to: <ul style="list-style-type: none"> <li>Recognize and draw a point, angle, line, line segment, and ray</li> <li>Measure angles with protractors</li> <li>Solve problems involving addition and subtraction to find unknown angles on a diagram</li> </ul>	Independently able to: <ul style="list-style-type: none"> <li>Recognize and draw a point, angle, line, line segment, and ray</li> <li>Measure angles with protractors</li> <li>Solve problems involving addition and subtraction to find unknown angles on a diagram</li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to: <ul style="list-style-type: none"> <li>Describe the attributes of two-dimensional figures using proper mathematical vocabulary</li> <li>Classify and sort two-dimensional figures in a hierarchy by their attributes</li> </ul>
Trimester 3	Unable to: <ul style="list-style-type: none"> <li>Recognize and draw a point, angle, line, line segment, and ray</li> <li>Recognize, draw and classify triangles and quadrilaterals by their angles, sides, lines of symmetry</li> <li>Recognize and draw</li> </ul>	Requires teacher prompting and support to: <ul style="list-style-type: none"> <li>Recognize and draw a point, angle, line, line segment, and ray</li> <li>Recognize, draw and classify triangles and quadrilaterals by their angles, sides, lines of symmetry</li> <li>Recognize and draw</li> </ul>	Independently able to: <ul style="list-style-type: none"> <li>Recognize and draw a point, angle, line, line segment, and ray</li> <li>Recognize, draw and classify triangles and quadrilaterals by their angles, sides, lines of symmetry</li> <li>Recognize and draw</li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to: <ul style="list-style-type: none"> <li>Describe the attributes of two-dimensional figures using proper mathematical vocabulary</li> <li>Classify and sort two-dimensional figures in a hierarchy by their attributes</li> </ul>

	lines of symmetry ● Measure angles with protractors ● Solve problems involving addition and subtraction to find unknown angles on a diagram	lines of symmetry ● Measure angles with protractors ● Solve problems involving addition and subtraction to find unknown angles on a diagram	lines of symmetry ● Measure angles with protractors ● Solve problems involving addition and subtraction to find unknown angles on a diagram	
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**Mathematical Practices**

Makes sense of problems and perseveres in solving them				
Performance Level	1	2	3	4
Trimester 1	Unable to explain the problem or make a plan to solve the problem.	Requires teacher prompting and support to: ● Explain the problem ● Make a plan ● Persevere with several attempts ● Change plan if necessary	Independently able to: ● Explain the problem ● Make a plan ● Persevere with several attempts ● Change plan if necessary	Consistently, accurately and independently meets the criteria for a 3 and is able to: ● Check answers for reasonableness ● Solve with more than one strategy
Trimester 2	Unable to explain the problem or make a plan to solve the problem.	Requires teacher prompting and support to: ● Explain the problem ● Make a plan ● Persevere with several attempts ● Change plan if necessary	Independently able to: ● Explain the problem ● Make a plan ● Persevere with several attempts ● Change plan if necessary	Consistently, accurately and independently meets the criteria for a 3 and is able to: ● Check answers for reasonableness ● Solve with more than one strategy

Trimester 3	Unable to explain the problem or make a plan to solve the problem.	Requires teacher prompting and support to: <ul style="list-style-type: none"> <li>• Explain the problem</li> <li>• Make a plan</li> <li>• Persevere with several attempts</li> <li>• Change plan if necessary</li> </ul>	Independently able to: <ul style="list-style-type: none"> <li>• Explain the problem</li> <li>• Make a plan</li> <li>• Persevere with several attempts</li> <li>• Change plan if necessary</li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to: <ul style="list-style-type: none"> <li>• Check answers for reasonableness</li> <li>• Solve with more than one strategy</li> </ul>
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Clearly communicates mathematical thinking and reasoning				
Performance Level	1	2	3	4
Trimester 1	Unable to: <ul style="list-style-type: none"> <li>• Make and present solutions by using objects, drawings, diagrams and equations</li> <li>• Explain logical solution using correct math vocabulary</li> <li>• Make response clear and understandable for the audience</li> <li>• Listen to solutions of others and comment appropriately</li> </ul>	Requires teacher prompting and support to: <ul style="list-style-type: none"> <li>• Make and present solutions by using objects, drawings, diagrams and equations</li> <li>• Explain logical solution using correct math vocabulary</li> <li>• Make response clear and understandable for the audience</li> <li>• Listen to solutions of others and comment appropriately</li> </ul>	Independently able to: <ul style="list-style-type: none"> <li>• Make and present solutions by using objects, drawings, diagrams and/or equations</li> <li>• Explain logical solution using correct math vocabulary</li> <li>• Make response clear and understandable for the audience</li> <li>• Listen to solutions of others and comment appropriately</li> </ul>	Consistently, accurately and independently meets the criteria for a 3 and is able to: <ul style="list-style-type: none"> <li>• Compare and contrast various solution strategies with peers</li> <li>• Identify the various weaknesses and strengths of strategies</li> </ul>

<p>Trimester 2</p>	<p>Unable to:</p> <ul style="list-style-type: none"> <li>● Make and present solutions by using objects, drawings, diagrams and equations</li> <li>● Explain logical solution using correct math vocabulary</li> <li>● Make response clear and understandable for the audience</li> <li>● Listen to solutions of others and comment appropriately</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>● Make and present solutions by using objects, drawings, diagrams and equations</li> <li>● Explain logical solution using correct math vocabulary</li> <li>● Make response clear and understandable for the audience</li> <li>● Listen to solutions of others and comment appropriately</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>● Make and present solutions by using objects, drawings, diagrams and/or equations</li> <li>● Explain logical solution using correct math vocabulary</li> <li>● Make response clear and understandable for the audience</li> <li>● Listen to solutions of others and comment appropriately</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>● Compare and contrast various solution strategies with peers</li> <li>● Identify the various weaknesses and strengths of strategies</li> </ul>
<p>Trimester 3</p>	<p>Unable to:</p> <ul style="list-style-type: none"> <li>● Make and present solutions by using objects, drawings, diagrams and equations</li> <li>● Explain logical solution using correct math vocabulary</li> <li>● Make response clear and understandable</li> </ul>	<p>Requires teacher prompting and support to:</p> <ul style="list-style-type: none"> <li>● Make and present solutions by using objects, drawings, diagrams and equations</li> <li>● Explain logical solution using correct math vocabulary</li> <li>● Make response clear and understandable</li> </ul>	<p>Independently able to:</p> <ul style="list-style-type: none"> <li>● Make and present solutions by using objects, drawings, diagrams and/or equations</li> <li>● Explain logical solution using correct math vocabulary</li> <li>● Make response clear and understandable</li> </ul>	<p>Consistently, accurately and independently meets the criteria for a 3 and is able to:</p> <ul style="list-style-type: none"> <li>● Compare and contrast various solution strategies with peers</li> <li>● Identify the various weaknesses and strengths of strategies</li> </ul>

	for the audience ● Listen to solutions of others and comment appropriately	for the audience ● Listen to solutions of others and comment appropriately	for the audience ● Listen to solutions of others and comment appropriately	
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