

Standards	Topic and Objectives		
<b>5.NBT.1</b> <b>5.NBT.2</b> <b>5.MD.1</b>	A	<b>Multiplicative Patterns on the Place Value Chart</b> Lesson 1: Reason concretely and pictorially using place value understanding to relate adjacent base ten units from millions to thousandths. Lesson 2: Reason abstractly using place value understanding to relate adjacent base ten units from millions to thousandths. Lesson 3: Use exponents to name place value units and explain patterns in the placement of the decimal point. <b>Lesson 4: Use exponents to denote powers of 10 with application to metric conversions.</b>	<b>Days: 3</b>  <b>Extension Lesson 4</b> , it focuses on metric conversions.

By the end of Topic A, your students should be able to:

- Know and understand the value of digits from millions to hundredths
- Explain patterns when multiplying by powers of 10

#### Snapshot Assessment 5.NBT.1

In the number 42,293 what is the difference between the 2 in the thousands place and the column to its right? (DOK 1)

In the number 4.42 what is the difference between the 4 in the tenths place and 4 to its' left?(DOK 1)

#### Snapshot Assessment 5.NBT.2

A number has a 9 in the ten thousands place. If you multiply the number by 10, where will the 9 be in the product? Explain. (DOK 2)

Jose says that if  $30 \times 300 = 9,000$ , then  $50 \times 600 = 3,000$ . Do you agree or disagree? Explain. (DOK 2)

<b>5.NBT.3</b>	<b>B</b>	<p><b>Decimal Fractions and Place Value Patterns</b></p> <p>Lesson 5: Name decimal fractions in expanded, unit, and word forms by applying place value reasoning.</p> <p>Lesson 6: Compare decimal fractions to the thousandths using like units and express comparisons with <math>&gt;</math>, <math>&lt;</math>, <math>=</math>.</p> <p><b>1 Day Math Task:</b> <a href="#">Decimal Garden</a> (pg. 44)</p>	<p><b>Days: 3</b></p> <p>This task is from Georgia and focuses on 5.NBT.3.</p>
<p>By the end of Topic B, your students should be able to:</p> <ul style="list-style-type: none"> <li>Read, write, and compare decimals to the thousandths</li> </ul> <p><b>Snapshot Assessment for 5.NBT.3</b></p> <p>Write the number name and expanded form for the decimal: (DOK 1)  <b>24.561</b></p> <p>Expanded form:</p> <p>Number name:</p> <p>Compare using <math>&gt;</math>, <math>&lt;</math>, or <math>=</math>  <math>.50</math> ___ <math>.05</math></p> <p>Explain your reasoning using words, numbers, and/or pictures.</p>			
<b>5.NBT.4</b>	<b>C</b>	<p><b>Place Value and Rounding Decimal Fractions</b></p> <p><b>Lesson 7:</b> Round a given decimal to any place using place value understanding and the vertical number line.</p> <p>Lesson 8: Round a given decimal to any place using place value understanding and the vertical number line. <b>Use Lesson 7 Sprint.</b></p>	<p><b>Days: 1</b></p> <p><b>Optional Lesson 7</b>, it is repetitive of Lesson 8. Do Sprint from Lesson 7.</p>

By the end of Topic C, your students should be able to:

- Use a vertical number line to round a decimal to any place value to explain their thinking

**Snapshot Assessment for 5.NBT.4**

Use a vertical number line to round the following number to the place of the underlined digit. (DOK 1)

2.39

Doug wanted to buy snacks at the movie theater. The total was \$34.97. About how much money will he need to cover the cost? Round to the nearest dollar. (DOK 1)

*3 Days for Remediation, Enrichment, Mid-Module Assessment*

[Mid-Module Assessment Word Document](#)

**Suggested Tasks:**

- [Reasonable Rounding](#)- Georgia Math, page 53, focuses on 5.NBT.3, 5.NBT.4
- For Remediation: [Decimals Task](#)
- For Enrichment: [Check This](#)

<p><b>5.NBT.2</b> <b>5.NBT.3</b> <b>5.NBT.7</b></p>	<p>D</p>	<p><b>Adding and Subtracting Decimals</b>  <b>Introduction Task:</b> <a href="#">Coins Worth</a>.            Lesson 9: Add decimals using place value strategies and relate those strategies to a written method.            Lesson 10: Subtract decimals using place value strategies and relate those strategies to a written method.</p>	<p><b>Days: 2</b>  <b>Before Lesson 9,</b> introduce adding decimals with task <a href="#">Coins Worth</a>.</p>
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By the end of Topic D, your students should be able to:

- Add and subtract decimals to the hundredths
- Use models or drawings to explain my thinking

### **5.NBT.7 Snapshot Assessment**

Sarah has 4 weeks to earn \$18, so she can buy a new game. Below is a list of jobs that she can choose from. She only has enough time to do 1 job per week. Explain two different combinations of jobs Sarah could do to earn at least \$18. Use words, numbers, and pictures to explain your thinking. (DOK 3)

Jobs	Money Per Week
Mowing Lawns	\$3.45
Planting Trees	\$5.75
Shoveling Topsoil	\$4.65

*3 Days for Re-Assessment, Remediation and Enrichment*

[End of Module Assessment Word Document](#)

**Total Instructional Days: 15**

Links Used:

Module Assessments: <https://www.engageny.org/resource/grade-5-mathematics-module-1>

“Decimal Garden” Task, page 44: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-2.pdf>

“Reasonable Rounding” Task, page 53: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-2.pdf>

“Decimals” Task: <http://www.fwps.org/tfl/wp-content/uploads/sites/3/2014/06/Decimals-Task-and-Rubric-Module-1.pdf?697a0d>

“Check This” Task: <http://www.fwps.org/tfl/wp-content/uploads/sites/3/2014/06/Check-This-Task-and-Rubric-Module-1.pdf?697a0d>

“Coins Worth” Task: <http://robertkaplinsky.com/work/how-much-money-are-the-coins-worth/>



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Based on a work at [www.engageny.org](http://www.engageny.org), [www.smarterbalanced.org](http://www.smarterbalanced.org) and the [CCSS Progression Documents](#).



5<sup>th</sup> Grade Pacing Module 2 with Suggested Modifications **Key**

- Optional Lesson
- Extension Lesson
- Remedial Lesson

Standards	Topic and Objectives		
<b>5.NBT.1</b> <b>5.NBT.2</b> 5.OA.1	A	<b>Mental Strategies for Multi-Digit Whole Number Multiplication</b> Lesson 1: Multiply multi-digit whole numbers and multiples of 10 using place value patterns and the distributive and associative properties.  Lesson 2: Estimate multi-digit products by rounding factors to a basic fact and using place value patterns.	<b>Days: 2</b>
By the end of Topic A, your students should be able to: <ul style="list-style-type: none"> <li>• Multiply whole numbers by multiples of 10</li> <li>• Know and use distributive and associative properties of multiplication</li> <li>• Estimate by rounding to multiple of 10</li> </ul>			
<b>5.OA.1</b> <b>5.OA.2</b> <b>5.NBT.5</b>	B	<b>The Standard Algorithm for Multi-Digit Whole Number Multiplication</b> **Lesson 3: Write and interpret numerical expressions and compare expressions using a visual model.  Lesson 4: <span style="background-color: green; color: black;">Convert numerical expressions into unit form as a mental strategy for multi-digit multiplication.</span> Lesson 5: Connect visual models and the distributive property to partial products of the standard algorithm without renaming. Lesson 6: Connect area diagrams and the distributive property to partial products of the standard algorithm without renaming. Lesson 7: Connect area diagrams and the distributive property to partial products of the standard algorithm with renaming. Lesson 8: Fluently multiply multi-digit whole numbers using the standard algorithm and using estimation to check for reasonableness of the product. Lesson 9: Fluently multiply multi-digit whole numbers using the standard algorithm to solve multi-step word problems.	<b>Days: 6</b> **Before teaching Lesson 3, review order of operations with students. <b>Extension Lesson 4</b> , it uses mental strategy for multi-digit multiplication.
By the end of Topic B, your students should be able to: <ul style="list-style-type: none"> <li>• Use parenthesis and brackets to evaluate expressions</li> <li>• Use area diagrams and partial products to connect with the standard algorithm for multiplication with and without renaming</li> </ul>			



- Multiply using the standard algorithm and use estimation to check reasonableness of product
- Use the standard algorithm to solve multi-step word problems

**Snapshot Assessment for 5.OA.1**

Evaluate the expression. (DOK 1)  
 $136 \div (11-7)$

When evaluating the expressions below, which expression has a value of 6? Explain your reasoning. (DOK 1)

$24 - 6 \div 3$

or

$8 - 6 \div 3$

**Snapshot Assessment for 5.OA.2**

[Snapshot Assessment - Module 2](#)

**Snapshot Assessment for 5.NBT.5**

Find the product using the standard algorithm. Show your work below. (DOK 1)  
 $7,932 \times 378 =$

New button-up shirts at Costco are on sale for \$23 each. At the end of the day, Costco sold 437 shirts. How much money did Costco make selling shirts? (DOK 1)

<p><b>5.NBT.7</b>          5.OA.1          5.OA.2          5.NBT.1</p>	<p>C</p>	<p><b>Decimal Multi-Digit Multiplication</b></p> <p>Lesson 10: Multiply decimal fractions with tenths by multi-digit whole numbers using place value understanding to record partial products.</p> <p>Lesson 11: Multiply decimal fractions by multi-digit whole numbers through conversion to a whole number problem and reasoning about the placement of the decimal.</p> <p>Lesson 12: Reason about the product of a whole number and a decimal with hundredths using place value understanding and estimation.</p>	<p><b>Days: 3</b></p> <p>For Remediation: Lesson 11 from Module 1 - Multiply a decimal fraction by single-digit whole numbers</p>
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By the end of Topic C, your students should be able to:

- Multiply decimal fractions with tenths by multi-digit whole numbers
- Use estimation to justify the reasonableness of your product

**Snapshot Assessment for 5.NBT.7**

Find the product. Show your work below. (DOK 1)





	Lesson 17: Use basic facts to approximate quotients with two-digit divisors. Lesson 18: Use basic facts to approximate quotients with two-digit divisors.	<b>Optional Lesson 17</b> , it is repetitive.
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- By the end of Topic E, your students should be able to:
- Divide by patterns of 10 (example:  $150/10 = 15$ )
  - Approximate quotients with two-digit divisors

**Snapshot Assessment for 5.NBT.2**

Divide. Show your work below.  
 (DOK 1)  
 **$204 \div 20$**

[Snapshot Assessment 5.NBT.6](#)- do problem #4

<b>5.NBT.6</b>	<b>F</b>	<p><b>Partial Quotients and Multi-Digit Whole Number Division</b></p> <p>Lesson 19: Divide two- and three-digit dividends by multiples of 10 with single-digit quotients and make connections to a written method.</p> <p>Lesson 20: Divide two- and three-digit dividends by two-digit divisors with single-digit quotients and make connections to a written method.</p> <p>Lesson 21: Divide two- and three-digit dividends by two-digit divisors with single-digit quotients and make connections to a written method.</p> <p>Lesson 22: Divide three- and four-digit dividends by two-digit divisors resulting in two- and three-digit quotients, reasoning about the decomposition of successive remainders in each place value.</p> <p>Lesson 23: Divide three- and four-digit dividends by two-digit divisors resulting in two- and three-digit quotients, reasoning about the decomposition of successive remainders in each place value.</p> <p style="text-align: center;"><b>Combine Lessons 22 &amp; 23</b></p>	<p style="text-align: center;"><b>Days: 4</b></p> <p><b>Combine Lessons 22 and 23</b>, Use concept development problems #1 and 2 from Lesson 22 and problems #3 and 4 from 23. Use problem set and exit ticket from Lesson 23.</p>
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- By the end of Topic F, your students should be able to:
- Divide up to four-digit dividends by up to two-digit divisors
  - Interpret remainders

**Snapshot Assessment for 5.NBT.6**

Michael has 219 football cards. Each page of his football card album holds 15 cards. How many pages does Michael need to hold all of his football cards? (DOK 1)





The community garden has an area of 1,872 square feet. The length of one side is 24 feet. The community pool also has an area of 1,872 square feet and the length of one side of the pool is 52 feet. Does the community's pool or garden have a greater width? Explain how you know. (DOK 2)

<p><b>5.NBT.2</b> <b>5.NBT.7</b></p>	<p><b>G</b></p>	<p><b>Partial Quotients and Multi-Digit Decimal Division</b></p> <p><b>Use Sprint from Module 1, Lesson 13.</b></p> <p>Lesson 24: Divide decimal dividends by multiples of 10, reasoning about the placement of the decimal point and making connections to a written method.</p> <p>Lesson 25: Use basic facts to approximate decimal quotients with two-digit divisors, reasoning about the placement of the decimal point.</p> <p><b>Lesson 26: Divide decimal dividends by two-digit divisors, estimating quotients, reasoning about the placement of the decimal point, and making connections to a written method.</b></p> <p>Lesson 27: Divide decimal dividends by two-digit divisors, estimating quotients, reasoning about the placement of the decimal point, and making connections to a written method.</p>	<p><b>Days: 2</b></p> <p>Use Lesson 13 from Module 1 for remediation and concept development.</p> <p><b>Lessons 26</b> can be used for additional practice/re-teaching.</p>
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By the end of Topic G, your students should be able to:

- Divide by multiples of 10
- Divide decimals to hundredths
- Explain reasoning on where the decimal point is placed

Snapshot Assessment for 5.NBT.7

[Dividing with Decimals Task](#)

**SBAC Released Item:**

**Example Stem:** Which expression is equal to  $16.25 \div 2.5$ ?

- A.  $1.625 \div 25$
- B.  $16.25 \div 25$
- C.  $162.5 \div 25$
- D.  $1625 \div 25$

**Rubric:** (1 point) The student selects the correct option (e.g., C).



<b>5.NBT.6</b> <b>5.NBT.7</b>	H	<b>Measurement Word Problems with Multi-Digit Division</b> Lesson 27: Divide decimal dividends by two-digit divisors, estimating quotients, reasoning about the placement of the decimal point, and making connections to a written method.  Lesson 28: Solve division word problems involving multi-digit division with group size unknown and the number of groups unknown.  Lesson 29: Solve division word problems involving multi-digit division with group size unknown and the number of groups unknown.	<b>Days: 1</b> <b>Add problem set from Lesson 27 to Lesson 28</b> so students have one problem set to use during the lesson and one for independent practice.  <b>Optional Lesson 29</b> and is repetitive of Lesson 28. Can be used for spiral review later in the year.
By the end of Topic H, your students should be able to: <ul style="list-style-type: none"> <li>Use division strategies to solve word problems with minimal errors</li> </ul>			
<i>3 Days for Re-Assessment, Remediation and Enrichment</i> <a href="#">End of Module Assessment Word Document</a> Summative Task for 5.NBT.2 and 5.NBT.7 from Georgia Math: <a href="#">Bargain Shopping - page 82</a>  <b>Total Instructional Days: 29</b>			

Links Used:

Georgia Math “Bargain Shopping”: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-3.pdf>  
(see page 82)

Module Assessments: <https://www.engageny.org/resource/grade-5-mathematics-module-2>



Standards	Topic and Objectives		
<b>4.NF.1</b> 4.NF.3c 4.NF.3d	A	<b>Equivalent Fractions</b> Lesson 1: Make equivalent fractions with the number line, the area model, and numbers. Lesson 2: Make equivalent fractions with sums of fractions with like denominators.	<b>Days: 2</b>  Review of 4 <sup>th</sup> grade standards.

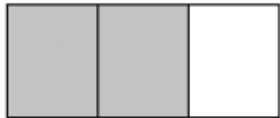
By the end of Topic A, your students should be able to:

- Create equivalent fractions
- Add with like-denominators

**SBAC Released Items**

**4.NF.1**

**Example Stem:** Figure A has  $\frac{2}{3}$  of its whole shaded gray.



**Figure A**

Decide whether each fraction is equal to  $\frac{2}{3}$ . Select Yes or No for each fraction.

	Yes	No
$\frac{4}{6}$		
$\frac{1}{2}$		
$\frac{8}{12}$		

Click in the chart to match each fraction to the model that shows an equivalent fraction.

$\frac{2}{3}$				
$\frac{3}{4}$				
$\frac{4}{8}$				
$\frac{6}{10}$				

<b>5.NF.1</b> <b>5.NF.2</b>	<b>B</b>	<b>Making Like Units Pictorially</b> Lesson 3: Add fractions with unlike units using the strategy of creating equivalent fractions. Lesson 4: Add fractions with sums between 1 and 2.  Lesson 5: Subtract fractions with unlike units using the strategy of creating equivalent fractions. Lesson 6: Subtract fractions from numbers between 1 and 2. Lesson 7: Solve two-step word problems.	<b>Days: 5</b>
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By the end of Topic B, your students should be able to:

- Add and subtract fractions with unlike denominators by finding simple equivalent fractions
- Solve word problems involving addition and subtraction of fractions with unlike denominators

[Snapshot Assessment](#) for 5.NF.1 – Do problems 1-3 only

[Snapshot Assessment - Part 2](#) for 5.NF.2 – Do problems 1 and 2 only

**SBAC Released Items:**

TM1a

**Stimulus:** The student is presented with an addition problem involving fractions with unlike denominators.

**Example Stem 1:** Enter the sum.  $\frac{2}{10} + \frac{30}{100}$

**Example Stem 2:** Enter the sum.  $\frac{8}{6} + \frac{3}{12}$

**Example Stem 3:** Enter the sum.  $\frac{3}{4} + 1\frac{3}{5}$

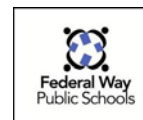
TM1b

**Stimulus:** The student is presented with a subtraction problem involving fractions with unlike denominators.

**Example Stem 1:** Enter the difference.  $\frac{6}{10} - \frac{20}{100}$

**Example Stem 2:** Enter the difference.  $\frac{15}{12} - \frac{3}{4}$

**Example Stem 3:** Enter the difference.  $2\frac{7}{9} - \frac{3}{8}$



**Example Stem:** Which set of steps shows a correct strategy and solution for subtracting  $1\frac{3}{4} - \frac{1}{3}$ ?

<p>A. <math>\frac{3}{4 \times 3} - \frac{1}{3 \times 4}</math></p> $= \frac{3}{12} - \frac{1}{12}$ $= \frac{2}{12} = \frac{1}{6}$	<p>B. <math>\frac{7}{4 \times 3} - \frac{1}{3 \times 4}</math></p> $= \frac{7}{12} - \frac{1}{12}$ $= \frac{6}{12} = \frac{1}{2}$	<p>C. <math>\frac{7 \times 3}{4 \times 3} - \frac{1 \times 4}{3 \times 4}</math></p> $= \frac{21}{12} - \frac{4}{12}$ $= \frac{17}{12} = 1\frac{5}{12}$	<p>D. <math>\frac{7 \times 3}{4 \times 3} - \frac{1 \times 3}{3 \times 4}</math></p> $= \frac{21}{12} - \frac{3}{12}$ $= \frac{18}{12} = 1\frac{6}{12} = 1\frac{1}{2}$
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*2 Days for Assessment, Remediation and Enrichment*

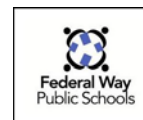
[Mid-Module Assessment Word Document](#)

<b>5.NF.1</b>	<b>C</b>	<p><b>Making Like Units Numerically</b></p> <p>Lesson 8: Add fractions to and subtract fractions from whole numbers using equivalence and the number line as strategies.</p> <p>Lesson 9: Add fractions making like units numerically.</p> <p>Lesson 10: Add fractions with sums greater than 2.</p> <p>Lesson 11: Subtract fractions making like units numerically.</p> <p>Lesson 12: Subtract fractions greater than or equal to one.</p>	<b>Days: 5</b>
<b>5.NF.2</b>			<p>Insert <b>Lesson 14 and 15</b> Sprints to these lessons.</p>

By the end of Topic C, your students should be able to:

- Add and subtract fractions and mixed numbers with unlike denominators by finding equivalent fractions
- Solve word problems by adding and subtracting fractions and mixed numbers with unlike denominators

[Snapshot Assessment 5.NF.1](#) – Do problem 4 only , [Howard County](#) Assessments for 5.NF.1 and 5.NF.2



**SBAC Released Item:**

**Example Stem:** Which expression is equivalent to  $2 - \frac{1}{3} + \frac{2}{5}$ ?

A.  $\frac{2}{15} - \frac{1}{15} + \frac{2}{15}$     C.  $\frac{17}{15} - \frac{7}{15} + \frac{8}{15}$

B.  $\frac{2}{15} - \frac{5}{15} + \frac{6}{15}$     D.  $\frac{30}{15} - \frac{5}{15} + \frac{6}{15}$

<b>5.NF.1</b>	<b>D</b>	<b>Further Applications</b> <b>Lesson 13:</b> Use fraction benchmark numbers to assess reasonableness of addition and subtraction equations. <b>Lesson 14:</b> Strategize to solve multi-term problems. <b>Lesson 15:</b> Solve multi-step word problems; assess reasonableness of solutions using benchmark numbers. <b>Lesson 16:</b> Explore part to whole relationships.	<b>Days: 0</b>  Lessons 13-16 are extensions because students have to explain their reasoning more in-depth.
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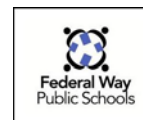
*2 Days for Re-Assessment and Problem Solving Tasks*

[End of Module Assessment Word Document](#)

**SBAC Released Items to Use for Problem Solving:**

**Example Stem:** Sara has  $1\frac{3}{4}$  feet of cloth. She used  $\frac{1}{3}$  foot to make a bow. Which expression could be used to correctly determine the amount of cloth, in feet, that remains?

A.  $1 - \frac{3}{12} - \frac{1}{12}$   
 B.  $1 - \frac{9}{12} - \frac{1}{4}$   
 C.  $1 + \frac{3}{12} - \frac{1}{12}$   
 D.  $1 + \frac{9}{12} - \frac{1}{12}$



**Example Item 1 (Grade 5):**

Primary Target 4C (Content Domain NF), Secondary Target 1F (CCSS 5.NF.1)

Oliver's family planted a tree on his 1st birthday. Each year the tree grows about the same amount. Oliver's family has measured the height of the tree every year on his birthday, except they forgot to record its height on his 5th birthday.

Oliver's Birthday	1st	2nd	3rd	4th	5th	6th
Height of Tree (ft)	$\frac{5}{12}$	$1\frac{1}{2}$	$3\frac{1}{4}$	$4\frac{2}{3}$	?	$7\frac{7}{12}$

Which measurement is the most reasonable estimate for the height of the tree on Oliver's 5th birthday?

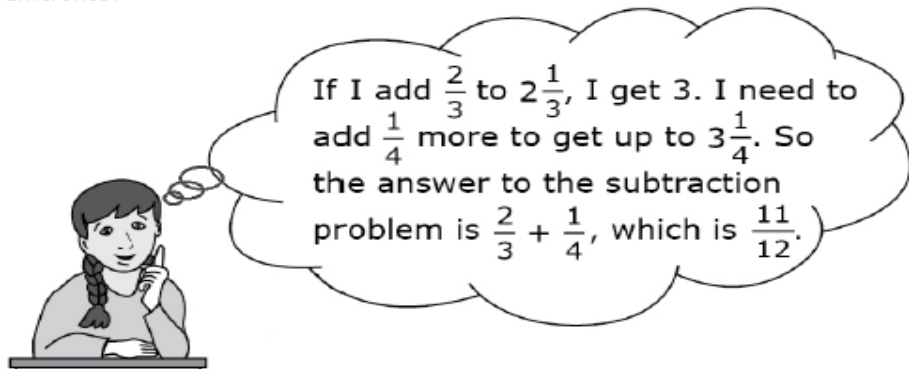
- A.  $5\frac{1}{12}$  ft
- B.  $5\frac{3}{8}$  ft
- C.  $6\frac{1}{6}$  ft
- D.  $6\frac{11}{12}$  ft



**Example Item 3 (Grade 5):**

Primary Target 3A (Content Domain NF), Secondary Target 1E (CCSS 5.NF.2), Tertiary Target 3F

Julie is working on this subtraction problem:  $3\frac{1}{4} - 2\frac{1}{3}$ . She uses addition as a strategy for finding the difference.



Use the same reasoning as Julie to complete the statement that describes how to get the answer to this subtraction problem:  $5\frac{1}{2} - 4\frac{2}{4}$ .

Choose the numbers from the palette to complete the statement. Numbers may be used more than once.

"If I add \_\_\_ to \_\_\_, then I get \_\_\_. I need to add \_\_\_ more to get up to \_\_\_. So the answer to the subtraction problem is \_\_\_ + \_\_\_, which is \_\_\_."

"If I add \_\_\_ to \_\_\_, then I get \_\_\_. I need to add \_\_\_ more to get up to \_\_\_. So the answer to the subtraction problem is \_\_\_ + \_\_\_, which is \_\_\_."

**Rubric:** (2 points) The student correctly places all 8 numbers. Some numbers are interchangeable (e.g.,  $\frac{1}{4}$ ,  $4\frac{3}{4}$ ,  $5$ ,  $\frac{1}{3}$ ,  $5\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{7}{12}$  or  $4\frac{3}{4}$ ,  $\frac{1}{4}$ ,  $5$ ,  $\frac{1}{3}$ ,  $5\frac{1}{3}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{7}{12}$ ).

(1 point) The student is able to either determine the correct answer ( $\frac{7}{12}$ ) without correctly completing the reasoning, or can complete the reasoning correctly but not the final answer.

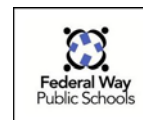
**Interaction:** The student drags the following numbers from the multi-use palette:  $\frac{1}{4}$ ;  $\frac{1}{3}$ ;  $\frac{5}{12}$ ;  $\frac{1}{2}$ ;  $\frac{7}{12}$ ;  $\frac{2}{3}$ ;  $\frac{3}{4}$ ; 1; 4;  $4\frac{3}{4}$ ; 5;  $5\frac{1}{2}$ .

**Total Instructional Days: 16**

Links Used:

Module Assessments: <https://www.engageny.org/resource/grade-5-mathematics-module-3>

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- Optional Lesson
- Extension Lesson
- Remedial Lesson

Standards	Topic and Objectives		
5.MD.2	A	<p><b>Line Plots of Fraction Measurements</b></p> <p><b>Lesson 1:</b> Measure and compare pencil lengths to the nearest <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, and <math>\frac{1}{8}</math> of an inch, and analyze the data through line plots.</p>	<p><b>Days: 0</b></p> <p><b>Optional Lesson 1</b>, 5.MD.2 is not a priority standard and this reviews 3<sup>rd</sup> and 4<sup>th</sup> grade line plots.</p>
5.NF.3	B	<p><b>Fractions as Division</b></p> <p>Lessons 2: Interpret a fraction as division.</p> <p><b>Lessons 3:</b> Interpret a fraction as division.</p> <p>Lesson 4: Use tape diagrams to model fractions as division.</p> <p><b>1 Day Module 1 Lesson 16: Review Word Problems</b></p> <p>Lesson 5: Solve word problems involving the division of whole numbers with answers in the form of fractions or whole numbers.</p>	<p><b>Days: 4</b></p> <p><b>Optional Lesson 3</b>, the concept is thoroughly covered in Lessons 2 and 4.</p> <p>Between Lessons 4 and 5, do Lesson 16 from Module 1 to review word problems with decimal operations.</p>



By the end of Topic B, your students should be able to:

- Interpret a fraction as division
- Use tape diagrams to model fractions as division
- Solve word problems involving the division of whole numbers with answers in the form of fractions

**Snapshot Assessment 5.NF.3 – do all problems**

**SBAC Released Items (see next page)**

**Example Stem:** An art teacher divided 22 ounces of beads equally among 6 groups of students.

How many ounces of beads did each group receive?

- A.  $\frac{1}{16}$  ounce
- B.  $\frac{1}{28}$  ounce
- C.  $\frac{6}{22}$  ounce
- D.  $\frac{22}{6}$  ounces

**Example Stem:** Which expression is equal to  $\frac{3}{4}$  ?

- A.  $3 \times 4$
- B.  $4 \times 3$
- C.  $4 \div 3$
- D.  $3 \div 4$

<b>5.NF.4a</b>	<b>C</b>	<b>Multiplication of a Whole Number by a Fraction</b> Lesson 6: Relate fractions as division to fraction of a set. Lesson 7: Multiply any whole number by a fraction using tape diagrams. Lesson 8: Relate fraction of a set to the repeated addition interpretation of fraction multiplication. <b>Lesson 9: Find a fraction of a measurement, and solve word problems.</b>	<b>Days: 3</b>  Lesson 9 would be a good extension or spiral review of measurement conversions.
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By the end of Topic C, your students should be able to:

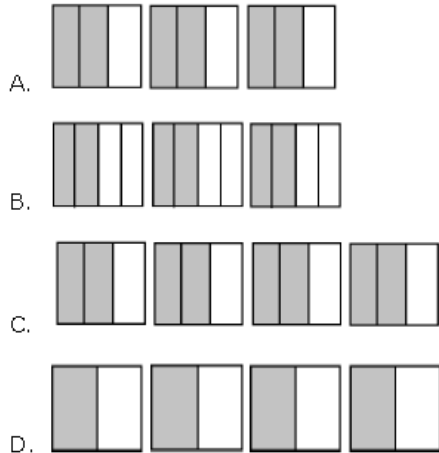
- Multiply a fraction or a whole number by a fraction
- Use tape diagrams to multiply a fraction by a whole number

**Snapshot Assessment 5.NF.4a – do problems 1 and 2 only**

**SBAC Released Item (see next page):**

Example Stem: Which fraction model best represents

$$4 \times \frac{2}{3}$$



**Rubric:** (1 point) The student identifies the correct fraction model for the given multiplication problem (e.g., C).

<b>5.OA.1</b> <b>5.OA.2</b> <b>5.NF.4a</b> <b>5.NF.6</b>	D	<b>Fraction Expressions and Word Problems</b> Lesson 10: Compare and evaluate expressions with parentheses. Lesson 11–12: Solve and create fraction word problems involving addition, subtraction, and multiplication.	<b>Days: 3</b>
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By the end of Topic D, your students should be able to:

- Use order of operations to evaluate expressions
- Create and solve fraction word problems

**Snapshot Assessment 5.NF.4a – do problem 3 only**

**Howard County - Task 5 5.NF.4 from Howard County, Howard County - Task 6 – also assesses 5.NF.6**

### SBAC Released Items:

#### Example Item 3 (Grade 5):

Primary Target 2C (Content Domain NF), Secondary Target 1F (CCSS 5.NF.B)

Carl feeds his dog  $2\frac{1}{2}$  cups of dog food every day. Each bag contains 64 cups of dog food. What is the maximum number of days that Carl can feed his dog exactly  $2\frac{1}{2}$  cups of dog food from one full bag?

**Rubric:** (1 point) The student is able to determine the maximum number of servings from one bag of food and interpret the remainder as not being enough for another serving (e.g., 25).

**Response Type:** Equation/Numeric

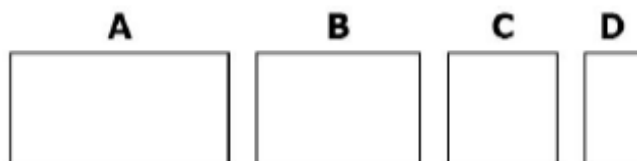
#### Example Item 1 (Grade 5):

Primary Target 3B (Content Domain NF), Secondary Target 1F (CCSS 5.NF.4a), Tertiary Target 3F

Look at the fraction model shown.



The shaded area represents  $\frac{3}{2}$ . Robert claims that the only way to model  $3 \times \frac{3}{2}$  using rectangles A, B, C, and D is to use 3 of rectangle B. Drag rectangles to the answer space to construct a model to show that Robert's claim is incorrect.



[icense.](#)

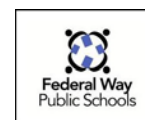
2 Days for Remediation, Enrichment, Mid-Module Assessment

[Mid-Module Assessment Word Document](#)

**Suggested Tasks:**

**[Time for Recess Performance Task](#)**: Covers 5.NF.3, 5.NF.4a, 5.NF.4b

<p>5.NBT.7 5.NF.4a 5.NF.6 5.MD.1 5.NF.4b</p>	<p>E</p>	<p><b>Multiplication of a Fraction by a Fraction</b></p> <p>Lesson 13: Multiply unit fractions by unit fractions.</p> <p>Lesson 14: Multiply unit fractions by non-unit fractions.</p> <p>Lesson 15: Multiply non-unit fractions by non-unit fractions.</p> <p>Lesson 16: Solve word problems using tape diagrams and fraction-by-fraction multiplication.</p> <p>Lessons 17: Relate decimal and fraction multiplication. <b>Use Lesson 18 Sprint.</b></p> <p><b>Lessons 18: Relate decimal and fraction multiplication.</b></p> <p>Lesson 19: Convert measures involving whole numbers, and solve multi-step word problems.</p> <p>Lesson 20: Convert mixed unit measurements, and solve multi-step word problems.</p>	<p><b>Days: 8</b></p> <p>Combine <b>Lessons 14 and 15</b> if students are ready to move on.</p> <p><b>Remedial Lesson 18</b>, it was covered in Module 3 – use for re-teaching or review as needed.</p> <p><b>Performance Tasks:</b> <a href="#">Water, Water</a> (pg 24) aligns with Water, Water GLAD unit</p> <p><a href="#">Cindy's Cats</a></p>
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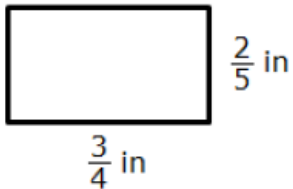
By the end of Topic E, your students should be able to:

- Multiply a fraction or a whole number by a fraction
- Solve multi-step word problems using tape diagrams
- Relate decimal and fraction multiplication

**Snapshot Assessment for 5.NF.2, 5.NF.4, and 5.NF.6 – use for re-assessments**

### SBAC Released Items

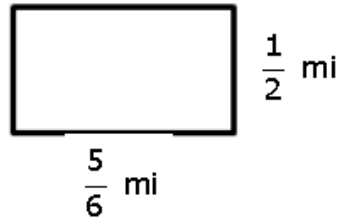
**Example Stem:** Use this rectangle to solve the problem.



Enter the area, in square inches, of the rectangle.

**Example Stem:** Cherrytown Park is in the shape of a rectangle.

- The width of the park is  $\frac{1}{2}$  mile.
- The length of the park is  $\frac{5}{6}$  mile.



<b>5.NF.5</b> <b>5.NF.6</b>	F	<b>Multiplication with Fractions and Decimals as Scaling and Word Problems</b> <b>Lesson 21:</b> Explain the size of the product, and relate fraction and decimal equivalence to multiplying a fraction by 1. Lessons 22–23: Compare the size of the product to the size of the factors. <b>Use Lesson 21 sprint.</b> <b>Lesson 24:</b> Solve word problems using fraction and decimal multiplication.	<b>Days: 2</b>  You can use Lessons 21 and 24 as enrichment.
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By the end of Topic F, your students should be able to:

- Compare the size of the product to the size of the factors

[Snapshot Assessment](#) 5.NF.5- use all problems

SBAC Released Item:

**Example Stem:** Enter a positive value for  $b$  that makes this statement true:  $5 \times b$  is greater than 5 but less than 10.

**Rubric:** (1 point) The student enters a correct value in the given range (e.g.,  $\frac{1}{2}$ ;  $1\frac{1}{2}$ ).

<p><b>5.OA.1</b> <b>5.NBT.7</b> <b>5.NF.7</b></p>	<p><b>G</b></p>	<p><b>Division of Fractions and Decimal Fractions</b></p> <p>Lesson 25: Divide a whole number by a unit fraction.</p> <p>Lesson 26: Divide a unit fraction by a whole number.</p> <p>Lesson 27: Solve problems involving fraction division.</p> <p>Lesson 28: Write equations and word problems corresponding to tape and number line diagrams.</p> <p>Lessons 29: Connect division by a unit fraction to division by 1 tenth and 1 hundredth. <b>Use Lesson 30 sprint.</b></p> <p><b>Lessons 30–31: Divide decimal dividends by non-unit decimal divisors.</b></p>	<p><b>Days: 5</b></p> <p><b>Lessons 30 and 31</b> can be used for enrichment but are not required for this standard.</p>
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By the end of Topic G, your students should be able to:

- Divide whole numbers and fractions by whole numbers and fractions
- Solve and write word problems involving fraction division and tape diagrams

[Snapshot Assessment](#) 5.NF.7– do all 4 problems



<b>5.OA.1</b> <b>5.OA.2</b>	<b>H</b>	<b>Interpretation of Numerical Expressions</b> <b>Lesson 32:</b> Interpret and evaluate numerical expressions including the language of scaling and fraction division.  Lesson 33: Create story contexts for numerical expressions and tape diagrams, and solve word problems.	<b>Days: 1</b>  <b>Lesson 32</b> could be used as enrichment because of the language of scaling.  In Lesson 33, remove #6 from the problem set.
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By the end of Topic H, your students should be able to:

- Create a story problem for numerical expressions and tape diagrams
- Solve word problems

**SBAC Released Items:**

**Example Stem:** Julie bikes  $6\frac{2}{3}$  miles along the river trail on Saturday. Greg swims  $\frac{3}{4}$  of that distance. Enter the distance, in miles, that Greg swims.

**Example Stem:** Ryan has  $\frac{1}{2}$  pound of chocolate. He divides it into 4 equal portions.

Enter the amount of chocolate, in pounds, in each portion.

*3 Days for Re-Assessment, Remediation and Enrichment*

In [End of Module Assessment](#), remove #2e, 2f, and 3c

**Suggested Performance Tasks:**

- [The Wishing Club](#) (pg. 61)
- [Party Time](#)

**Total Instructional Days: 31**

**Links Used:**

Module Assessments: <https://www.engageny.org/resource/grade-5-mathematics-module-4>

Time for Recess Task: <http://schools.nyc.gov/NR/ronlyres/B8B8BDAD-2EF2-4BF8-AE93-114C48B563E2/130938/NYCDOEG5Math TimeforRecess Final.pdf>



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Based on a work at [www.engageny.org](http://www.engageny.org), [www.smarterbalanced.org](http://www.smarterbalanced.org) and the [CCSS Progression Documents](#).





“Water, Water” Task, page 24: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5-Math-Unit-6.pdf>

Cindy’s Cats Task: <http://www.insidemathematics.org/assets/common-core-math-tasks/cindy's%20cats.pdf>

The Wishing Club Task, page 61: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-4.pdf>

Party Time Task: <http://www.insidemathematics.org/assets/problems-of-the-month/party%20time.pdf>



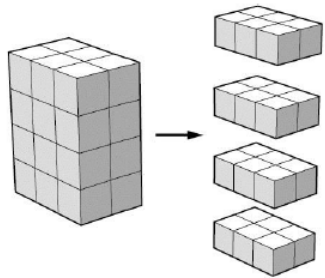
Standards	Topic and Objectives		
<b>5.MD.3</b> <b>5.MD.4</b>	A	<b>Concepts of Volume</b> <b>Launch for volume: <a href="#">Minecraft Volume Video</a></b> Lesson 1: Explore volume by building with and counting unit cubes. Lesson 2: Find the volume of a right rectangular prism by packing with cubic units and counting. Lesson 3: Compose and decompose right rectangular prisms using layers.	<b>Days: 3</b>  Use as a launch for volume: <a href="#">Minecraft Volume Video</a>

By the end of Topic A, your students should be able to:

- Build volume with unit cubes and count unit cubes to find volume of right rectangular prisms
- Identify the different ways to break up a right rectangular prism into layers

**SBAC Released Items: 5.MD.3, 5.MD.4**

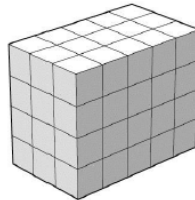
**Example Stem:** The layers of a rectangular prism are shown to the right of the prism.




**Key**  
 represents 1 cubic cm

Enter the volume, in cubic centimeters, of the rectangular prism.

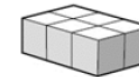
**Example Stem:** The rectangular prism shown is solid.




**Key**  
 represents 1 cubic cm

Enter the volume, in cubic centimeters, of the rectangular prism.

**Example Stem:** Elias is building a rectangular prism. The bottom layer of the rectangular prism is shown.



**Key**  
 represents 1 cubic cm

He builds a prism that has 4 layers. Enter the volume, in cubic centimeters, of the **completed** rectangular prism.

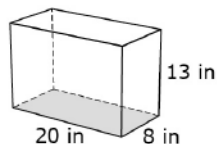
<p><b>5.MD.3</b> <b>5.MD.5</b></p>	<p><b>B</b></p>	<p><b>Volume and the Operations of Multiplication and Addition</b></p> <p>Lesson 4: Use multiplication to calculate volume.</p> <p>Lesson 5: Use multiplication to connect volume as <i>packing</i> with volume as <i>filling</i>.</p> <p>Lesson 6: Find the total volume of solid figures composed of two non-overlapping rectangular prisms.</p> <p>Lesson 7: Solve word problems involving the volume of rectangular prisms with whole number edge lengths.</p> <p>Lessons 8–9: Apply concepts and formulas of volume to design a sculpture using rectangular prisms within given parameters.</p> <p style="text-align: center;"><b>Use 3 Days for Lessons 8 and 9</b></p> <p><b>1 Day Math Task:</b> <a href="#">Cari's Aquarium</a></p>	<p style="text-align: center;"><b>Days: 8</b></p> <p>For Lessons 8 and 9, use three days instead of two. This is a very involved project that applies concepts and formulas and volume to design a sculpture.</p>
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By the end of Topic B, your students should be able to:

- Use multiplication to calculate volume and solve word problems of volume with whole number dimensions

**SBAC Released Items:**

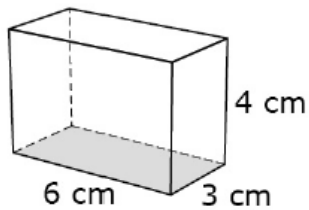
**Example Stem:** Danny has a fish tank, in the shape of a right rectangular prism. The edge lengths of the prism, in inches, are 8, 13, and 20.



Enter the volume, in cubic inches, of the fish tank.



**Example Stem:** The right rectangular prism shown has a length 6 centimeters, width 3 centimeters, and height 4 centimeters.

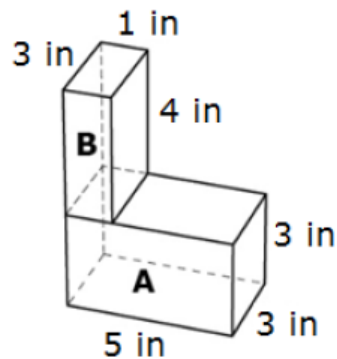


Determine whether each equation can be used to find the volume ( $V$ ) of this prism. Select Yes or No for each equation.

	Yes	No
$V = 18 \times 4$		
$V = (6 + 3) \times 4$		
$V = 6 \times 3 \times 4$		
$V = 9 \times 4$		
$V = 6 \times (3 \times 4)$		

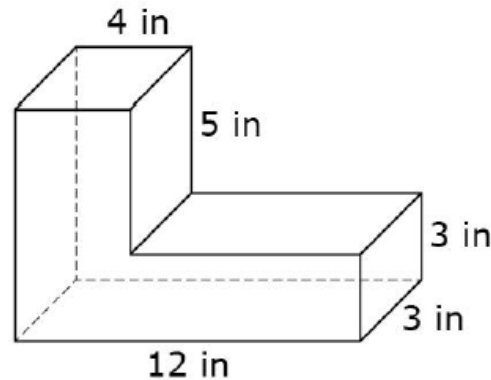
**Example Stem:** Sally uses Block A and Block B to create this model of a building.

- The dimensions of Block A are 3 by 3 by 5 inches.
- The dimensions of Block B are 1 by 3 by 4 inches.



Enter the combined volume, in cubic inches, of the entire model.

The figure shown was created by joining two rectangular prisms.



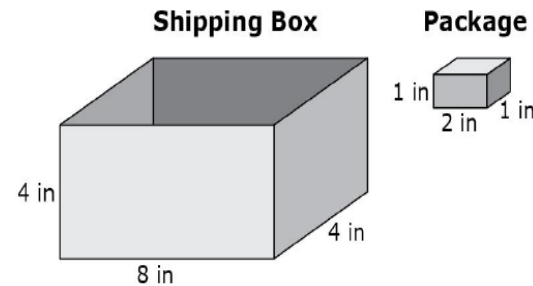
What is the total volume, in cubic inches, of the figure?

Enter your answer in the response box.

**Example Item 1 (Grade 5):**

Primary Target 2D (Content Domain MD), Secondary Target 1I (CCSS 5.MD.5b)

Tonya must completely fill a shipping box with as many packages as possible. Each package measures 1 inch by 2 inches by 1 inch. The shipping box she must use measures 4 inches by 8 inches by 4 inches.



What is the **greatest** number of packages that can fit into the shipping box?

Enter your answer in the response box.

**Rubric:** (1 point) The student enters the number of packages that can fit into the box (e.g., 64).



2 Days for Remediation, Enrichment, Mid-Module Assessment

**Suggested Tasks:** [How Many Ways?](#) Georgia Math, page 59, uses 5.MD.3-5

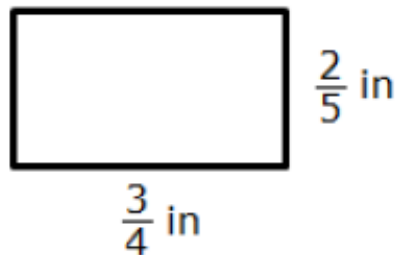
<p><b>5.NF.4b</b> <b>5.NF.6</b></p>	<p><b>C</b></p>	<p><b>Area of Rectangular Figures with Fractional Side Lengths</b></p> <p>Lesson 10: Find the area of rectangles with whole-by-mixed and whole-by-fractional number side lengths by tiling, record by drawing, and relate to fraction multiplication.</p> <p>Lesson 11: Find the area of rectangles with mixed-by-mixed and fraction-by-fraction side lengths by tiling, record by drawing, and relate to fraction multiplication.</p> <p>Lesson 12: Measure to find the area of rectangles with fractional side lengths.</p> <p>Lessons 13: Multiply mixed number factors, and relate to the distributive property and the area model.</p> <p>Lessons 14–15: Solve real world problems involving area of figures with fractional side lengths using visual models and/or equations.</p>	<p><b>Days: 6</b></p> <p>For Lessons 14 and 15, choose one question from these lessons to go deeper with as a performance task.</p>
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By the end of Topic C, your students should be able to:

- Find the area of rectangles with whole number, fractional number, and mixed number sides
- Solve real world problems involving area with fractional side lengths
- Multiply mixed number factors to find area

**SBAC Released Item for 5.NF.4b and 5.NF.6**

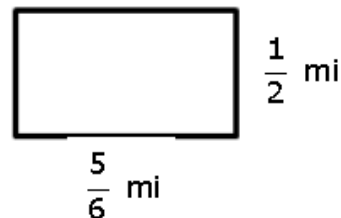
**Example Stem:** Use this rectangle to solve the problem.



Enter the area, in square inches, of the rectangle.

**Example Stem:** Cherrytown Park is in the shape of a rectangle.

- The width of the park is  $\frac{1}{2}$  mile.
- The length of the park is  $\frac{5}{6}$  mile.



Enter the area, in square miles, of Cherrytown Park.






<b>5.G.3</b> <b>5.G.4</b>	<b>D</b>	<b>Drawing, Analysis, and Classification of Two-Dimensional Shapes</b> Lesson 16: Draw trapezoids to clarify their attributes, and define trapezoids based on those attributes. Lesson 17: Draw parallelograms to clarify their attributes, and define parallelograms based on those attributes. Lesson 18: Draw rectangles and rhombuses to clarify their attributes, and define rectangles and rhombuses based on those attributes. Lesson 19: Draw kites and squares to clarify their attributes, and define kites and squares based on those attributes. Lesson 20: Classify two-dimensional figures in a hierarchy based on properties. <b>Use Lesson 21 sprint.</b> <b>Lesson 21: Draw and identify varied two-dimensional figures from given attributes.</b>	<b>Days: 5</b>  <b>Remedial Lesson 21</b> , it is a “guess my shape” game for further practice classifying.
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By the end of Topic D, your students should be able to:



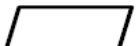
- Draw, analyze, and classify two-dimensional shapes

**SBAC Released Item for 5.G.3 and 5.G.4:**

Determine whether each polygon shown is also a parallelogram. Select Yes or No for each polygon.

	Yes	No
 Rectangle	<input type="checkbox"/>	<input type="checkbox"/>
 Trapezoid	<input type="checkbox"/>	<input type="checkbox"/>
 Rhombus	<input type="checkbox"/>	<input type="checkbox"/>

**Example Stem 2:** Determine whether each polygon is a rhombus and/or a quadrilateral. Select all boxes that apply next to each polygon. If the polygon is **not** a rhombus or a quadrilateral, select Neither.

	Rhombus	Quadrilateral	Neither
 Rectangle			
 Square			
 Parallelogram			

**Rubric:** (1 point) The student correctly selects all boxes that apply with no incorrect boxes selected (e.g., N, N, Y, N, N; Rectangle: Quadrilateral; Square: Rhombus, Quadrilateral; Parallelogram: Quadrilateral).

*3 Days for Re-Assessment, Remediation and Enrichment*



[Module Assessment Word Documents](#)

**Suggested Tasks:** [Toy Box Design](#) Georgia Math, page 85, 5.MD 3-5

**Total Instructional Days: 27**

Links Used:

Module Assessments: <https://www.engageny.org/resource/grade-5-mathematics-module-5>

“Cari’s Aquarium” Task: <https://www.illustrativemathematics.org/content-standards/tasks/1308>

“How Many Ways?” Task, page 59: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5-Math-Unit-6.pdf>

“Toy Box Design” Task, page 85: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5-Math-Unit-6.pdf>

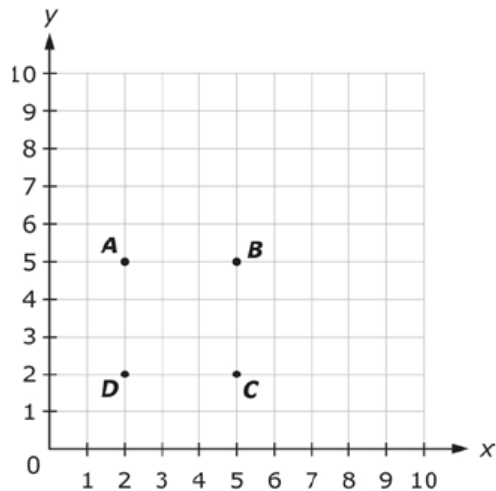


- Optional Lesson
- Extension Lesson
- Remedial Lesson

Standards	Topic and Objectives		
<p><b>5.G.1</b></p>	<p>A</p>	<p><b>Coordinate Systems</b>  <i>Introduce Coordinate Systems with Whole Numbers using</i>  <a href="#">Georgia Grade 5, pg 12</a></p> <ul style="list-style-type: none"> <li>• <b>Shoo-Fly (1 day) - will need the book <u>Fly on the Ceiling</u> by Julie Glass</b></li> </ul> <p><b>Lesson 1:</b> Construct a coordinate system on a line.</p> <p>Lesson 2: Construct a coordinate system on a plane.</p> <p>Lesson 3: Name points using coordinate pairs, and use the coordinate pairs to plot points.</p> <p>Lesson 4: Name points using coordinate pairs, and use the coordinate pairs to plot points.</p> <p>Lesson 5: Investigate patterns in vertical and horizontal lines, and interpret points on the plane as distances from the axes.</p> <p><a href="#">Georgia Grade 5, pg 20</a></p> <p>Air Traffic Controller (1 day)</p> <p><b>Lesson 6:</b> Investigate patterns in vertical and horizontal lines, and interpret points on the plane as distances from the axes.</p>	<p><b>Days: 6</b></p> <p>Do the Georgia Math game “Shoo-Fly” to introduce coordinate systems <b>before</b> starting the EngageNY lessons.</p> <p><b>Remedial Lesson 1</b>, it is a review of a number line.</p> <p>Do the “Air Traffic Controller” game after Lesson 5. You will need shower curtain liners for the game.</p> <p><b>Extension Lesson 6</b>, it goes beyond the fifth grade standard.</p>
<p>By the end of Topic A, your students should be able to:</p> <ul style="list-style-type: none"> <li>• Construct a coordinate system on a plane with fractional coordinates</li> <li>• Write a coordinate as (____, ____)</li> <li>• Name and interpret points on a plane</li> <li>• Identify “x” and “y” axes</li> </ul> <p><b>SBAC Released Items (see next page):</b></p>			

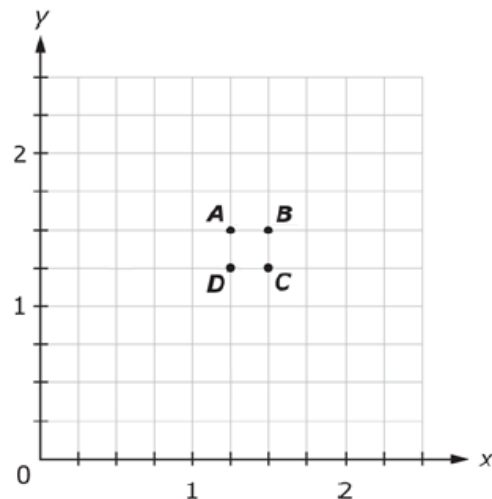






Which point is located at (5, 2)?

- A. Point A
- B. Point B
- C. Point C
- D. Point D



Which point is located at  $(1\frac{1}{2}, 1\frac{1}{4})$ ?

- A. Point A
- B. Point B
- C. Point C
- D. Point D

**5.OA.2**  
**5.OA.3**  
**5.G.1**

**B**

**Patterns in the Coordinate Plane and Graphing Number Patterns from Rules**

**[Georgia Grade 5](#), page 32: Earth Day Project (1 day)**

Lesson 7: Plot points, use them to draw lines in the plane, and describe patterns within the coordinate pairs. **Use Lesson 11 sprint.**

Lesson 8: Generate a number pattern from a given rule, and plot the points.

**[Georgia Grade 5](#), page 40: First to Arrive (1 day)**

Lesson 9: Generate two number patterns from given rules, plot the points, and analyze the patterns. **Use Lesson 12 sprint.**

*Spend as much time as needed for students to explore relationships in the coordinate grid.*

**3-4 days** Contextual Problems: Real Life Scenarios and Patterns with changes in x and y

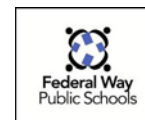
**Possible Resources to Use:**

**[Tri-Triangles](#) Level B or C, SmarterBalanced Released Item, [www.visualpatterns.org](http://www.visualpatterns.org)**

**Days: 8 to 9**



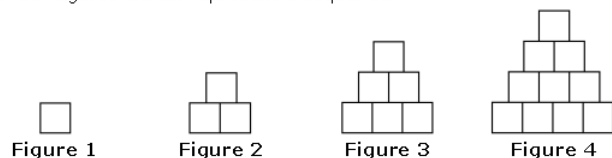
	<p><b>Video Examples:</b> <a href="#">Input and Output Table</a> , <a href="#">Intro to Ratios</a> (create a free account to watch this video)</p> <p>Students <i>must be able to generate rules from a graphed equation, coordinate pairs and tables</i>. For example if given a table, they must be able to say, “The rule for x is add 3 and the rule for y is multiply by 2”</p> <p>The following examples are things that they may be asked to do on the SmarterBalanced assessment:</p> <ul style="list-style-type: none"> <li>• Evaluate the relationship between variables in a coordinate plane</li> <li>• Plot points based on rules for X and Y (x,y)</li> <li>• Identify the nth term in a sequence</li> <li>• Identify or create coordinate pairs based on rules</li> </ul> <p>On the following two pages, you will find examples of released items. It is important for students to see the connection to real world context in these to make sense of the rules.</p> <p><b>Lesson 10:</b> Compare the lines and patterns generated by addition rules and multiplication rules.</p> <p><b>Lesson 11:</b> Analyze number patterns created from mixed operations.</p> <p><b>Lesson 12:</b> Create a rule to generate a number pattern, and plot the points.</p>	<p><b>Lessons 10-12</b> are extensions because they go beyond the fifth grade standards.</p>
<p>By the end of Topic B, your students should be able to:</p> <ul style="list-style-type: none"> <li>• Describe patterns with coordinate pairs</li> <li>• Generate a number pattern from a given rule and plot the points</li> <li>• Create a rule to generate a number pattern and plot the points</li> <li>• Analyze number patterns created from mixed operations</li> </ul> <p><b>SBAC Released Items (see next page):</b></p>		



**Example Item 12 (Grade 5):**

Primary Target 2A (Content Domain OA), Secondary Target 1B (CCSS 5.OA.3), Tertiary Target 2D, Quaternary Target 1D (CCSS 4.NBT.4)

The four figures shown represent a sequence.



How many squares are needed to make Figure 5 if this sequence of figures continues?

Figure	Number of Squares
1	1
2	3
3	6
4	10
5	?

Enter your answer for Figure 5 in the first response box.

Figure 40 in this sequence contains 820 squares. How many squares are needed to make Figure 41? Enter your answer for Figure 41 in the second response box.

**Example Stem:** Patterns A and B are generated using these rules.

- Pattern A: Start with 10 and add 5.
- Pattern B: Start with 2 and add 1.

Which statement **best** describes the relationship between the corresponding terms of Pattern A and Pattern B?

- Each term in Pattern A is  $\frac{1}{5}$  of the value of the corresponding term in Pattern B.
- Each term in Pattern A is 4 more than the value of the corresponding term in Pattern B.
- Each term in Pattern A is 5 times the value of the corresponding term in Pattern B.
- Each term in Pattern A is 8 more than the value of the corresponding term in Pattern B.

**Rubric:** (1 point) The student selects the correct description of the relationship (e.g., C).

**Example Stem:** Patterns P and Q are generated using these rules.

- Pattern P: Start with 0 and add 1.
- Pattern Q: Start with 0 and add  $\frac{1}{4}$ .

Which set of ordered pairs is generated from corresponding terms of Pattern P and Pattern Q?

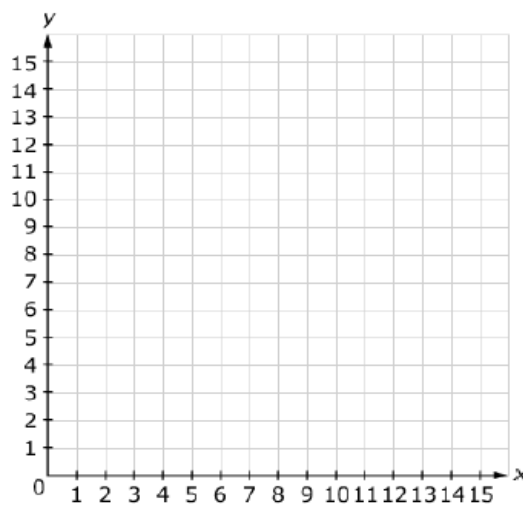
- $(0, 0), (1, \frac{1}{4}), (2, \frac{1}{2}), (3, \frac{3}{4})$
- $(1, \frac{1}{4}), (1, \frac{1}{2}), (1, \frac{3}{4}), (1, 1)$
- $(0, 0), (1, 2), (2, 3), (3, 4)$
- $(\frac{1}{4}, \frac{1}{2}), (\frac{1}{2}, \frac{3}{4}), (\frac{3}{4}, 1), (1, \frac{1}{2})$

**Rubric:** (1 point) The student selects the correct set of ordered pairs (e.g., A).

**Example Stem:** Patterns X and Y are generated using these rules.

- Pattern X: Start with 5 and add 5.
- Pattern Y: Start with 1 and add 2.

Graph three points to represent the ordered pairs formed by the first three corresponding terms in Pattern X and Pattern Y.



*1 Day for Remediation and/or Enrichment*  
**Do not use the Mid-Module Assessment**

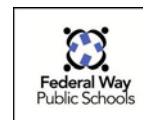
<p><b>5.G.1</b> <b>5.G.2</b></p>	<p>C</p>	<p><b>Drawing Figures in the Coordinate Plane</b></p> <p><b>Lesson 13:</b> Construct parallel line segments on a rectangular grid.</p> <p><b>Lesson 14:</b> Construct parallel line segments, and analyze relationships of the coordinate pairs.</p> <p><b>Lesson 15:</b> Construct perpendicular line segments on a rectangular grid.</p> <p><b>Lesson 16:</b> Construct perpendicular line segments, and analyze relationships of the coordinate pairs.</p> <p><b>Lesson 17:</b> Draw symmetric figures using distance and angle measure from the line of symmetry.</p>	<p><b>Days: 1 (for Snapshot Assessment)</b></p> <p><b>Lessons 13-17</b> are enrichment because they go beyond the fifth grade standards.</p>
<p><b>5.OA.3</b> <b>5.G.2</b></p>	<p>D</p>	<p><b>Problem Solving in the Coordinate Plane</b></p> <p><b>Lesson 18:</b> Draw symmetric figures on the coordinate plane.</p> <p><b>Problem Solving Task: <a href="#">Granny's Balloon Trip</a> (1 day)</b></p> <p>Lesson 19: Plot data on line graphs and analyze trends. <b>Use Lesson 29 sprint.</b></p> <p>Lesson 20: Use coordinate systems to solve real world problems. <b>Use Lesson 33 sprint.</b></p> <p><b><a href="#">Georgia Unit 5: What's the Better Buy?</a> (1 day)</b></p>	<p><b>Days: 4</b></p> <p><b>Lesson 18</b> is enrichment because it goes beyond the fifth grade standard.</p>

By the end of Topic D, your students should be able to:

- Plot data on line graphs
- Analyze trends on a line graph
- Use coordinate systems to solve real world problems

*1 Day for Remediation and Enrichment- **Do Not Use End of Module Assessment***

<p>5.NF.2 5.NF.3 5.NF.6 5.NF.7c 5.MD.1 5.MD.5 5.G.2</p>	<p>E</p>	<p><b>Multi-Step Word Problems</b></p> <p>Lessons 21–25: Make sense of complex, multi-step problems and persevere in solving them.</p> <p style="text-align: center;">Share and critique peer solutions.</p>	<p><b>Days: 5</b></p> <p>Use <a href="#">Visual Patterns</a> for practice generating rules for visual patterns, further practicing content of this module.</p>
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Review only.		
F	<b>The Years in Review: A Reflection on A Story of Units</b> Lessons 26–27: Solidify writing and interpreting numerical expressions. Lesson 28: Solidify fluency with Grade 5 skills. Lessons 29–30: Solidify the vocabulary of geometry. Lesson 31: Explore the Fibonacci sequence. Lesson 32: Explore patterns in saving money. Lessons 33–34: Design and construct boxes to house materials for summer use.	<b>Days: 2 to 3</b>  Use Lessons 26-34 enrichment/review activities as needed.
Review only.		
<b>Total Instructional Days: 28 to 30</b>		

Links Used:

“Shoo Fly” Task, page 12; “Air Traffic Controller” Task, pg 20; “Earth Day Project” Task, pg 32; “First to Arrive” Task, pg 40: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-7.pdf>

“Granny’s Balloon Trip” Task: <http://www.insidemathematics.org/assets/common-core-math-tasks/granny's%20balloon%20trip.pdf>

“What’s the Better Deal?” Task, page 43: <http://www.insidemathematics.org/assets/common-core-math-tasks/granny's%20balloon%20trip.pdf>

Visual Patterns Resource: <http://www.visualpatterns.org/>

