



Standards-Based Assessment + Instruction

**PROBLEM SOLVING**  
FOR THE **21<sup>ST</sup> CENTURY**

BUILT FOR THE  
**NYS NEXT GENERATION  
LEARNING STANDARDS**

**Illustrative Math Alignments**  
Grade 7

1. Login to Exemplars Library: [library.exemplars.com](http://library.exemplars.com) with your school e-mail and password
2. Select the Grade 7 Unit you are working on:
  - [Unit 1: Scale Drawings](#)
  - [Unit 2: Introducing Proportional Relationships](#)
  - [Unit 3: Measuring Circles](#)
  - [Unit 4: Proportional Relationships and Percentages](#)
  - [Unit 5: Rational Number Arithmetic](#)
  - [Unit 6: Expressions, Equations, and Inequalities](#)
  - [Unit 7: Angles, Triangles, and Prisms](#)
  - [Unit 8: Probability and Sampling](#)
  - [Unit 9: Putting it All Together](#)
3. Once you are in the correct Unit, click on the task name, which is directly linked to the Exemplars Library where you can download a printer-friendly PDF and lesson planning sheet for the corresponding task.

## Illustrative Math: Grade 7

Unit 1: Scale Drawings

Lessons 1-13

<b>Scaled Copies (Lessons 1-6)</b> NY-7.G.A.1	<b>Scale Drawings (Lessons 7-12)</b> NY-7.RP.A.1 NY-7.G.A.1 NY-7.G.B.6	<b>Let's Put it to Work (Lessons 13)</b> NY-7.G.A.1
<a href="#">Stained Glass</a>	<a href="#">Lake Erie Dilemma</a>	<a href="#">Olympic Trophy Design</a>
<a href="#">Rectangular Prisms &amp; Ratios</a> (more accesible version)	Summative Assessment Task: <a href="#">The Great Pyramids</a>	<a href="#">School Banner Design</a>
<a href="#">The L.L Bean Bootmobile</a>		
Summative Assessment Task: <a href="#">M&amp;M's Show their Patriotism</a>		

## Illustrative Math: Grade 7

Unit 2: Introducing Proportional Relationships  
 Lessons 1-15

Representing Proportional Relationships with Tables (Lessons 1-3) NY-7.RP.A.2	Representing Proportional Relationships with Equations (Lessons 4-6) NY-7.RP.A.1 NY-7.RP.A.2	Comparing Proportional and Nonproportional Relationships (Lessons 7-9) NY-7.RP.A.2 NY-7.G.B.6	Representing Proportional Relationships with Graphs (Lessons 10-13) NY-7.RP.A.2	Let's Put it to Work (Lesson 14-15) NY-7.RP.A.2
<a href="#">The Last Day of School</a>	<a href="#">The Foosball Problem</a>	<a href="#">7th Grade Service Project</a>	<a href="#">Solar Cars</a>	<a href="#">Golden Ratio Assignment</a>
*Summative Assessment Task: <a href="#">Mile Markers</a>	<a href="#">Samantha's Smoothies</a>		<a href="#">Not So Fast</a>	<a href="#">Dripping Faucet</a>
	<a href="#">YouTube Star</a>		*Summative Assessment Task: <a href="#">Mile Markers</a>	
	*Summative Assessment Task: <a href="#">Mile Markers</a>			

\*While students will develop skills to be successful on the Summative Assessment Task: Mile Marker in the first section, giving the assessment during the second section, or even waiting until the fourth section will allow for students to demonstrate greater flexibility to the problem as they develop a variety of ways to represent thinking.

## Illustrative Math: Grade 7

Unit 3: Measuring Circles

Lessons 1-11

Circumference of a Circle (Lesson 1-5) NY-7.RP.A.2 NY-7.RP.A.3 NY-7.G.B.4	Area of a Circle (Lesson 6-9) NY-7.RP.A.2 NY-7.G.B.4 NY-7.G.B.6	Let's Put it to Work (Lesson 10-11) NY-7.EE.B.3 NY-7.G.B.4
<a href="#">Can You Find a Relationship?</a>	<a href="#">What's Left?</a>	<a href="#">Play Area Fund</a>
	<a href="#">Getting Some Exercise</a>	
	<a href="#">The Pizza Shop</a>	
	<a href="#">Fido's New Kennel</a>	
	Summative Assessment Task: <a href="#">Billy's Goat</a>	

## Illustrative Math: Grade 7

Unit 4: Proportional Relationships and Percentages

Lessons 1-16

<b>Proportional Relationships with Fractions (Lesson 1-5)</b> NY-7.RP.A.1 NY-7.RP.A.2	<b>Percent Increase and Decrease (Lesson 6-9)</b> NY-7.RP.A.2 NY-7.RP.A.3	<b>Applying Percentages (Lesson 10-15)</b> NY-7.RP.A.2 NY-7.RP.A.3	<b>Let's Put it to Work (Lesson 16)</b> NY-7.RP.A.3
<a href="#">Raking It In</a>	<a href="#">Dot Patterns</a>	<a href="#">The Sweet Spot</a>	Continue with tasks from previous sections in Unit 4
<a href="#">Dragon Races</a>		Summative Assessment Task: <a href="#">3.14159 We Think Math is Really Fine</a>	
<a href="#">Average American</a>			
Summative Assessment Task: <a href="#">Going Airborne</a>			

**Illustrative Math: Grade 7**

Unit 5: Rational Number Arithmetic  
 Lessons 1-12

<b>Interpreting Negative Numbers (Lessons 1)</b> <small>NY-7.NS.A.1</small>	<b>Adding and Subtracting Rational Numbers (Lessons 2-7)</b> <small>NY-7.NS.A.1 NY-7.NS.A.3</small>	<b>Multiplying and Dividing Rational Numbers (Lessons 8-12)</b> <small>NY-7.NS.A.3 NY-7.EE.B.3</small>	<b>Four Operations with Rational Numbers (Lessons 13-14)</b> <small>NY-7.NS.A.3</small>	<b>Solving Equations When There Are Negative Numbers (Lessons 15-16)</b> <small>NY-7.NS.A.3 NY-7.EE.B.4</small>	<b>Let's Put it to Work (Lesson 17)</b> <small>NY-7.NS.A.3 NY-7.EE.B.3</small>
Continue with tasks from Unit 4.	<a href="#">Benji's Accounting</a>	<a href="#">Candy Dilemma</a>	<a href="#">Survivor Is Back</a>	<a href="#">Sunny Savings</a>	Continue with tasks from previous sections in Unit 5
	Summative Assessment Task: <a href="#">Get Debt-Free</a>	<a href="#">Greener Grass</a>	<a href="#"> Fargo Heat Wave</a>		
			<a href="#">Gumdrops</a>		
			Summative Assessment Task: <a href="#">Help With Our Next School Store Order</a>		

## Illustrative Math: Grade 7

Unit 6: Expressions, Equations, and Inequalities  
 Lessons 1-23

Representing Situations of the Form $px+q=r$ and $p(x+q)=r$ (Lessons 1-6) NY-7.EE.B.3 NY-7.EE.B.4	Solving Equations of the Form $px+q=r$ and $p(x+q)=r$ and Problems that Lead to Those Equations (Lessons 6-11) NY-7.EE.B.3	Inequalities (Lessons 13-17) NY-7.EE.B.4	Writing Equivalent Expressions (Lessons 18-22) NY-7.NS.A.1	Let's Put it to Work (Lesson 23)
Continue with tasks from previous units.	<a href="#">A Mid-Sized Paper Company in Northeastern Pennsylvania</a>  <a href="#">Farmers Market</a>  <a href="#">Movie Ticket Dilemma</a>  <a href="#">John's Field</a>  <a href="#">The Clean Room</a>  <a href="#">Building Block Dilemma</a>  Summative Assessment: <a href="#">Steakhouse Tips</a>	Summative Assessment: <a href="#">Concert Ticket Purchase</a>	Continue with tasks from previous sections in Unit 6	



## Illustrative Math: Grade 7

Unit 7: Angles, Triangles, and Prisms  
 Lessons 1-17

Angle Relationships (Lessons 1-5) NY-7.EE.B.4 NY-7.G.B.5	Drawing Polygons with Given Conditions (Lessons 6-10) NY-7.NS.A.1	Solid Geometry (Lessons 11-16) NY-7.G.B.6	Let's Put it to Work (Lessons 17) NY-7.G.B.6
<a href="#">Mike's Mega Mart's Intersection</a>	Continue to solve problems from Unit 7 or previous Units		
Summative Assessment Task: <a href="#">Mystery Angles</a>			

**Illustrative Math: Grade 7**

Unit 8: Probability and Sampling  
 Lessons 1-20

Probabilities of Single Step Events (Lessons 1-6) NY-7.SP.C.8	Probabilities of Multi-step Events (Lessons 7-10) NY-7.SP.C.8	Sampling (Lessons 11-14) NY-7.SP.C.7	Using Samples (Lessons 15-19)	Let's Put it to Work (Lesson 20) NY-7.SP.C.7
<a href="#">Bull's Eye</a>	<a href="#">Probability of Passing</a>	Continue with tasks from Unit 8	<a href="#">Game Practice</a>	Continue with tasks from Unit 8
	<a href="#">Colorful Combinations</a>		<a href="#">Beaded Math</a>	
	<a href="#">The Carnival</a>			
	<a href="#">Cupid Gets an Early Start</a>			
	Summative Assessment Task: <a href="#">Fair Game Dilemma</a>			

## Illustrative Math: Grade 7

Unit 9: Putting It All Together  
 Lessons 1-13

<b>Running a Restaurant</b> (Lessons 1-4) NY-7.RP.A.2 NY-7.RP.A.3 NY-7.EE.B.4 NY-7.G.B.4 NY-7.G.B.6	<b>Making Connections</b> (Lessons 5-9) NY-7.RP.A.1 NY-7.RP.A.2 NY-7.RP.A.3 NY-7.EE.B.4 NY-7.G.B.6	<b>Designing a Course</b> (Lessons 10-13) NY-7.RP.A.3 NY-7.G.B.4
<a href="#">Tiffany's Candles</a>		