

PROBLEM SOLVING
FOR THE **21ST** CENTURY

BUILT FOR THE
COMMON CORE

IM 360 Alignments
Grade 7

1. Login to Exemplars Library: 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

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

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Unit 2: Introducing Proportional Relationships

Lessons 1-15

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

*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.

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Unit 3: Measuring Circles

Lessons 1-11

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

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Unit 4: Proportional Relationships and Percentages

Lessons 1-16

Proportional Relationships with Fractions (Lesson 1-5) 7.RP.A.1 7.RP.A.2	Percent Increase and Decrease (Lesson 6-9) 7.RP.A.2 7.RP.A.3	Applying Percentages (Lesson 10-14) 7.RP.A.3	Let's Put it to Work (Lesson 15-16) 7.RP.A.3
Raking It In	Dot Patterns	The Sweet Spot	Continue with tasks from previous sections in Unit 4
Dragon Races		Summative Assessment Task: 3.14159 We Think Math is Really Fine	
Average American			
Summative Assessment Task: Going Airborne			

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Unit 5: Rational Number Arithmetic
Lessons 1-17

Adding and Subtracting Rational Numbers (Lessons 1-7) 7.NS.A.1 7.NS.A.3	Multiplying and Dividing Rational Numbers (Lessons 8-12) 7.NS.A.3 7.EE.B.3	Four Operations with Rational Numbers (Lessons 13-16) 7.NS.A.3 7.EE.B.4	Let's Put it to Work (Lesson 17) 7.NS.A.3 7.EE.B.3
Benji's Accounting	Candy Dilemma	Survivor Is Back	Continue with tasks from previous sections in Unit 5
Summative Assessment Task: Get Debt-Free	Greener Grass	Fargo Heat Wave	
		Gumdrops	
		Sunny Savings	
		Summative Assessment Task: Help With Our Next School Store Order	

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Unit 6: Expressions, Equations, and Inequalities
Lessons 1-22

Representing Situations of the Form $px+q=r$ and $p(x+q)=r$ (Lessons 1-6) 7.EE.B.3 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) 7.EE.B.3	Inequalities (Lessons 13-17) 7.EE.B.4	Writing Equivalent Expressions (Lessons 18-21) 7.NS.A.1	Let's Put it to Work (Lesson 22)
Continue with tasks from previous units.	A Mid-Sized Paper Company in Northeastern Pennsylvania	Summative Assessment: Concert Ticket Purchase	Continue with tasks from previous sections in Unit 6	
	Farmers Market			
	Movie Ticket Dilemma			
	John's Field			
	The Clean Room			
	Building Block Dilemma			
	Summative Assessment: Steakhouse Tips			

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Unit 7: Angles, Triangles, and Prisms

Lessons 1-17

**Angle Relationships
(Lessons 1-5)**

7.EE.B.4
7.G.A.5

**Drawing Polygons with
Given Conditions
(Lessons 6-10)**

7.NS.A.1

**Solid Geometry
(Lessons 11-16)**

7.G.A.6

**Let's Put it to Work
(Lessons 17)**

7.G.A.6

[Mike's Mega Mart's
Intersection](#)

Continue to solve problems from Unit 7 or previous Units

Summative Assessment Task:
[Mystery Angles](#)

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Unit 8: Probability and Sampling
Lessons 1-20

Probabilities of Single Step Events (Lessons 1-6) 7.SP.C.7 7.SP.C.8	Probabilities of Multi-step Events (Lessons 7-10) 7.SP.C.8	Sampling (Lessons 11-14) 7.SP.C.7	Using Samples (Lessons 15-19)	Let's Put it to Work (Lesson 20) 7.SP.C.7
Samantha's Spinners	Probability of Passing	Peak Amphibian Season	Game Practice	Continue with tasks from Unit 8
Game Club	Colorful Combinations	Election Polling	Beaded Math	
Bull's Eye	The Carnival			
Double Dilemma	Cupid Gets an Early Start			
Landing in the Carrot Patch	Summative Assessment Task: Fair Game Dilemma			
Summative Assessment Task: Chance Upon a Time	Duck, Duck, Booth			
Sums Dilemma	Chloe's Cupcakes			

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Unit 9: Putting It All Together

Lessons 1-12

Running a Restaurant (Lessons 1-3)	Making Connections (Lessons 4-8)	Designing a Course (Lessons 9-12)
7.RP.A.2 7.RP.A.3 7.EE.B.4 7.G.A.4 7.G.A.6	7.RP.A.1 7.RP.A.2 7.RP.A.3 7.EE.B.4 7.G.A.6	7.RP.A.3 7.G.A.4
<u>Tiffany's Candles</u>		