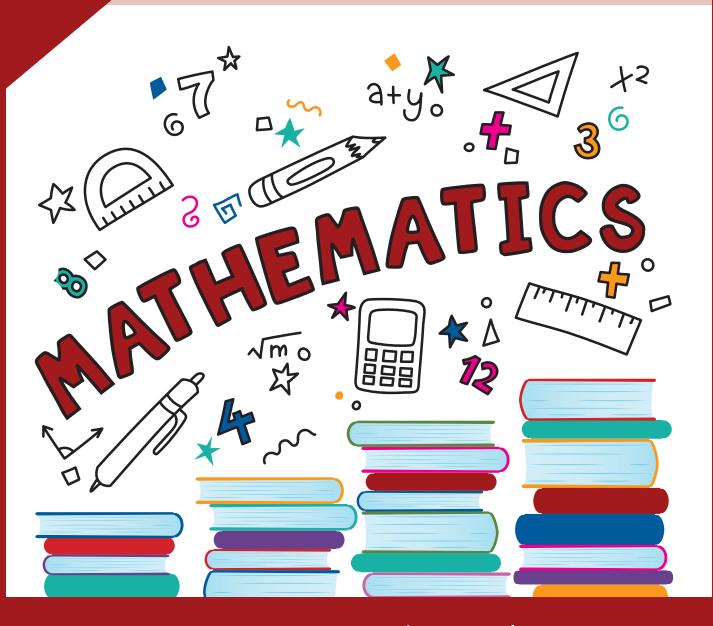


Grade 8

INTERVENTION

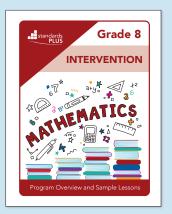


Program Overview and Sample Lessons

Teachers are the most important factor in student learning.

That's why every Standards Plus Lesson is directly taught by a teacher.





Standards Plus Intervention is Ideal for:

- Small group instruction
- After school programs
- Special Education settings to meet IEP goals
- Summer school programs

Standards Plus Intervention is Easy to Use:

- 1. Use your data or the included pre-assessments to identify students and intervention topics.
- 2. Find targeted lessons by topic in the lesson index.
- 3. Teach scaffolded direct instruction lessons to support student mastery of grade level standards.
- 4. Provide immediate feedback during each lesson, so errors don't become habits.
- 5. Measure student progress with post-assessments and performance tasks.

How Standards Plus Increases Student Achievement



TEACHERS are the most important factor in student learning.



DIRECT INSTRUCTION lessons are proven to foster the most significant gains in student achievement.



DISCRETE LEARNING TARGETS provide easily understood instruction that allow students to retain information.



MULTIPLE EXPOSURES TO EACH STANDARD/SKILL

Skills are presented in four to eight lessons, providing students multiple opportunities to practice and retain information.



IMMEDIATE FEEDBACK after every lesson provides the most powerful single modification that enhances student achievement.



FORMATIVE ASSESSMENTS are proven to be highly effective in providing information that leads to increased student achievement.



BUILT ON RESEARCH

All Standards Plus lessons are designed according to proven educational research.

Standards Plus Intervention Includes:

Pre-Assessments

Administer pre-assessments to identify students and intervention topics if you don't have existing performance data.











Tier 2 & Tier 3 Intervention Lessons 100+ Lessons (DOK 1-2)

Students learn the prerequisite skills necessary for the mastery of grade-level standards.











Performance Tasks

8+ Tasks (DOK 3)

Formative assessments that build on earlier content knowledge and acquired skills. Performance tasks are strategically placed to enhance learning as students apply their knowledge and skills.









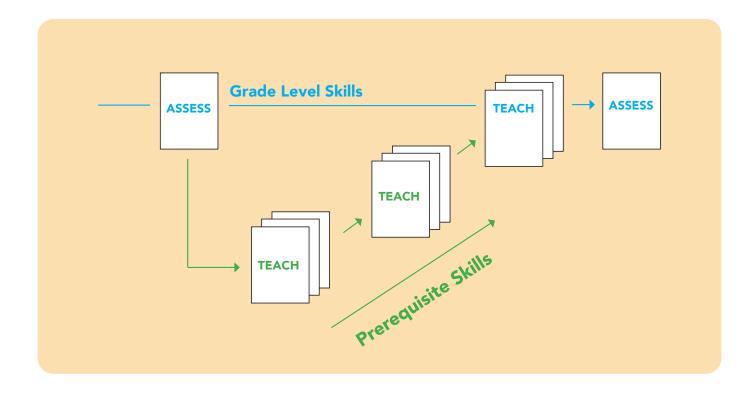


Post-Assessments

Administer a post-assessment to measure and validate student progress.

How Standards Plus Intervention Works

Standards Plus scaffolded intervention lessons teach the prerequisite skills necessary to master grade-level standards.



Each lesson includes a **step-by-step direct instruction lesson plan** that helps teachers effectively build readiness for grade level standards.

EL Support











Standards Plus materials are designed to meet the needs of English Learners by:

- Explicitly targeting the standards
- Emphasizing academic vocabulary
- Accelerating language development
- Providing immediate feedback to students
- Improving student confidence

Explore our EL Support Portal to view additional resources that provide a greater level of support for English Learners.

Visit the EL Support Portal at www.standardsplus.org/el-support





Standards Plus Intervention Mathematics Grade 8

Lesson Index

The lesson index lists the standard, focus, and DOK level for every Standards Plus Intervention lesson.





1 Fraction/Decimal Conversion 2 Fraction/Decimal Conversion 3 Compare & Order Fractions 4 Compare & Order Fractions/Decimals 5 Compare & Order Fractions/Decimals 6 Devel standards and instruction. Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. P1 Performance Task #1 – Writing Comparison Problems (8.NS.1) Post 1 Post-Assessment-Conversion & Comparison 2 Pre 2 Pre-Assessment-Rational Numbers 3 Exponents 4 Exponents 4 Exponents 5 Absolute Value 6 Absolute Value 7 Perfect Squares 8 Perfect Squares 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	7 8 9 10 11 1 13 15 16 17	3 1-2
2 Fraction/Decimal Conversion 3 Compare & Order Fractions 4 Compare & Order Fractions/Decimals 5 Compare & Order Fractions/Decimals P1 Performance Task #1 – Writing Comparison Problems (8.NS.1) Pre 2 Pre-Assessment-Conversion & Comparison 1 Exponents 2 Exponents 3 Exponents 4 Exponents 4 Exponents 5 Absolute Value 6 Absolute Value 7 Perfect Squares 9 Freequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. Perfect Squares 5 Perfect Squares 5 2 2 2	6 7 8 9 10 11 13 15 16 17 18 19 20	3 1-2
Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Exponents 38 1 Exponents 40 1 Exponents 42 1 Absolute Value 5 Absolute Value 7 Perfect Squares 6 Perfect Squares 52 2 Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 22 22	7 8 9 10 11 1 13 15 16 17 18 19 20	3 1-2
Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Exponents 38 1 Exponents 40 1 Exponents 42 1 Absolute Value 5 Absolute Value 7 Perfect Squares 6 Perfect Squares 52 2 Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 22 22	7 8 9 10 11 1 13 15 16 17 18 19 20	3 1-2
Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Exponents 38 1 Exponents 40 1 Exponents 42 1 Absolute Value 5 Absolute Value 7 Perfect Squares 6 Perfect Squares 52 2 Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 22 22	9 10 11 13 15 16 17 18 19 20	1-2
Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Exponents 38 1 Exponents 40 1 Exponents 42 1 Absolute Value 5 Absolute Value 7 Perfect Squares 6 Perfect Squares 52 2 Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 22 22	10 11 13 15 16 17 18 19 20	1-2
Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Exponents 38 1 Exponents 40 1 Exponents 42 1 Absolute Value 5 Absolute Value 7 Perfect Squares 6 Perfect Squares 52 2 Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 22 22	11 13 15 16 17 18 19 10 10 10 10 10 10 10 10 10 10 10 10 10	1-2
Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Exponents 38 1 Exponents 40 1 Exponents 42 1 Absolute Value 5 Absolute Value 7 Perfect Squares 6 Perfect Squares 52 2 Pre 2 Pre-Assessment-Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 36 1 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 22 22	13 15 16 17 18 19 20	
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1 Exponents 2 Exponents 3 Exponents 4 Exponents 5 Absolute Value 6 Absolute Value 7 Perfect Squares 8 Perfect Squares 38 1 40 1 42 1 42 1 43 scaffolded instruction to build readiness for grade level standards and instruction. 5 50 2	15 16 17 18 19 20	1-2
2 Exponents 3 Exponents 4 Exponents 4 Exponents 5 Absolute Value 6 Absolute Value 7 Perfect Squares 8 Perfect Squares 5 Exponents 40 11 42 11 42 11 44 11 55 Absolute value 6 Instruction to build readiness for grade level standards and instruction. 5 Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 5 Perfect Squares 5 2 2	16 17 18 19 19	1-2
3 Exponents 4 Exponents 5 Absolute Value 6 Absolute Value 7 Perfect Squares 8 Perfect Squares 5 Exponents 7 Perfect Squares 7 Perfect Squares 7 Perfect Squares 8 Perfect Squares 7 Perfect Squares 7 Perfect Squares 8 Perfect Squares 9 Perfect Squares	17 18 19 20	1-2
4 Exponents 5 Absolute Value 6 Absolute Value 7 Perfect Squares 8 Perfect Squares Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction. 50 2	18 19 20	1-2
5 Absolute Value 6 Absolute Value 7 Perfect Squares 8 Perfect Squares 5 Absolute Value 5 scaffolded instruction to build readiness for grade level standards and instruction. 5 build readiness for grade level standards and instruction. 5 5 2 2	19 1	1-2
6 Absolute Value build readiness for grade level standards and instruction. 8 Perfect Squares 52 2	20	
7 Perfect Squares instruction. 50 2 8 Perfect Squares 52 2		
8 Perfect Squares 52 2		
	22	
9 Estimating Square Roots 54 2	23	
10 Estimating Square Roots 56 2	24	
P2 Performance Task #2 – Using Exponential Expressions (8.EE.1) 58 2		3
Post 2 Post-Assessment- Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 60 2		1-2
9 Estimating Square Roots 10 Estimating Square Roots 56 2 P2 Performance Task #2 – Using Exponential Expressions (8.EE.1) Post 2 Post-Assessment- Rational Numbers 8.EE.1, 8.EE.2, 8.EE.7, 8.NS.2 Pre 3 Pre-Assessment-Expressions & Equations 8.EE.7, 8.EE.8		
Pre 3 Pre-Assessment-Expressions & Equations 8.EE.7, 8.EE.8 62 2	27	
11 Evaluating Variable Expressions 64 2 12 Writing Variable Expressions 66 3	29	
12 Writing Variable Expressions 66 3	30	
13 Order of Operations Prerequisite skills and	31	
14 Using the Distributive Property scaffolded instruction to 70	32	1-2
	33	
16 Solving Two-Step Equations level standards and instruction.	34	
	35	
18 Writing Equations 78 3	36	
19 Writing Equations 80 3	37	
P3 Performance Task #3 – What's Your Operation? (8.EE.7, 8.EE.8) 82 3	38	3
Post 3 Post-Assessment-Expressions & Equations 8.EE.7, 8.EE.8 84 3	39 1	1-2

Domain	Lesson	Focus	Standard(s) References	TE pg	St. Ed. pg	DOK
	Pre 4	Pre-Assessment-Solve & Graph Equations	8.EE.5, 8.EE.6, 8.EE.7	86	41	
	20	Solve Linear Equations		88	43	
ons	21	Solve Linear Equations		90	44	
Expressions & Equations	22	Solve & Graph Linear Equations	Prerequisite skills and	92	45	
Equ	23	Solve & Graph Linear Equations	scaffolded instruction to build readiness for grade	94	46	1-2
	24	Determining Slope	level standards and	96	47	
sior	25	Determining Slope	instruction.	98	48	
res	26	Using Inverse Operations		100	49	
Exp	27	Using Inverse Operations		102	50	
	P4	Performance Task #4 – What Is Slope? (8.EE	.5, 8.EE.7)	104	51	3
	Post 4	Post-Assessment-Solve & Graph Equations	8.EE.5, 8.EE.6, 8.EE.7	106	52	1-2
	Pre 5	Pre-Assessment-Rate, Ratio, Unit Rate	8.F.2, 8.F.4, 8.F.5	114	53	
	1	Ratio		116	55	
	2	Unit Rate	Dramanicita akilla and	118	56	
	3	Rate	Prerequisite skills and scaffolded instruction to	120	57	1-2
	4	Rate, Ratio, Unit Rate	build readiness for grade	122	58	1-2
	5	Solving Rate Problems	level standards and instruction.	124 59 126 60 128 61		
	6	Solving Average Speed Problems				
	7	Solving Rate & Average Speed Problems				
	P5	Performance Task #5 – Solving Rate Problems (8.F.2, 8.F.4, 8.F.5)				3
ctions	Post 5	Post-Assessment-Rate, Ratio, Unit Rate	8.F.2, 8.F.4, 8.F.5	132	63	1-2
Funct	Pre 6	Pre-Assessment- Relationships	8.F.1, 8.F.2, 8.F.3, 8.F.4, 8.F.5	134	65	
Œ	8	x- and y- Intercepts		136	67	
	9	x- and y- Intercepts		138	68	
	10	x- and y- Intercepts from a Linear Equation	Prerequisite skills and scaffolded instruction to	140	69	1-2
	11	x- and y- Intercepts from a Linear Equation	build readiness for grade	142	70] 1-2
	12	Graphing Linear Equations	level standards and instruction.	144	71	
	13	Graphing Linear Equations		146	72	
	14	Identifying Functions		148	73	
	Р6	Performance Task #6 – Functions & Their Gr	aphs (8.F.1- 8.F.5)	150	74	3
	Post 6	Post-Assessment- Relationships	8.F.1, 8.F.2, 8.F.3, 8.F.4, 8.F.5	152	75	1-2

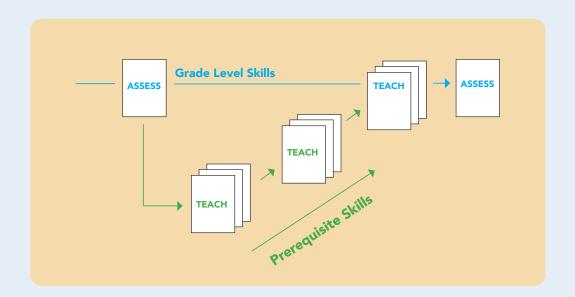
Domain	Lesson	Focus	Standard(s) References	TE pg	St. Ed. pg	DOK
	Pre 7	Pre-Assessment-Exploring Probability	Exploring Probability 8.SP.4		3	
	1	Probability		18	5	
	2	Probability		20	6	
	3	Samples of Populations		22	7	
	4	Samples of Populations	Prerequisite skills and	24	8	
	5	Predict Outcomes for a Simple Event	scaffolded instruction to	26	9	1-2
	6	Independent and Dependent Events	build readiness for grade level standards and	28	10	
	7	Probability and Proportions	instruction.	30	11	
	8	Probability of Compound Events	· ·	32	12	-
	9	Probability of Dependent Events		34	13	
ility	10	Probability of Compound/Dependent Events		36	14	
Statistics & Probability	P7	Performance Task #7 – Defining Samplings (8.	SP.4)	38	15	3
	Post 7	Post-Assessment-Exploring Probability	8.SP.4	40	16	1-2
S S	Pre 8	Pre-Assessment-Interpret & Display Data	8.SP.1, 8.SP.2	42	17	
istics 8	Pre 8 11	Pre-Assessment-Interpret & Display Data Determining Mean	8.SP.1, 8.SP.2	42 44	17 19	
Statistics &			8.SP.1, 8.SP.2			
Statistics &	11	Determining Mean	8.SP.1, 8.SP.2	44	19	
Statistics &	11 12	Determining Mean Determining Median	8.SP.1, 8.SP.2 Prerequisite skills and	44 46	19 20	
Statistics &	11 12 13	Determining Mean Determining Median Determining Mode	Prerequisite skills and scaffolded instruction to	44 46 48	19 20 21	1-2
Statistics &	11 12 13 14	Determining Mean Determining Median Determining Mode Mean, Median, Mode, Range, & Outliers	Prerequisite skills and	44 46 48 50	19 20 21 22	1-2
Statistics &	11 12 13 14 15	Determining Mean Determining Median Determining Mode Mean, Median, Mode, Range, & Outliers Mean, Median, Mode, Range, & Outliers	Prerequisite skills and scaffolded instruction to build readiness for grade	44 46 48 50 52	19 20 21 22 23	1-2
Statistics 8	11 12 13 14 15	Determining Mean Determining Median Determining Mode Mean, Median, Mode, Range, & Outliers Mean, Median, Mode, Range, & Outliers Tree Diagrams	Prerequisite skills and scaffolded instruction to build readiness for grade level standards and	44 46 48 50 52 54	19 20 21 22 23 24	1-2
Statistics &	11 12 13 14 15 16	Determining Mean Determining Median Determining Mode Mean, Median, Mode, Range, & Outliers Mean, Median, Mode, Range, & Outliers Tree Diagrams Stem-anLeaf Plots	Prerequisite skills and scaffolded instruction to build readiness for grade level standards and	44 46 48 50 52 54 56	19 20 21 22 23 24 25	1-2
Statistics 8	11 12 13 14 15 16 17	Determining Mean Determining Median Determining Mode Mean, Median, Mode, Range, & Outliers Mean, Median, Mode, Range, & Outliers Tree Diagrams Stem-anLeaf Plots Quartiles	Prerequisite skills and scaffolded instruction to build readiness for grade level standards and	44 46 48 50 52 54 56	19 20 21 22 23 24 25 26	1-2
Statistics 8	11 12 13 14 15 16 17 18	Determining Mean Determining Median Determining Mode Mean, Median, Mode, Range, & Outliers Mean, Median, Mode, Range, & Outliers Tree Diagrams Stem-anLeaf Plots Quartiles Quartiles	Prerequisite skills and scaffolded instruction to build readiness for grade level standards and instruction.	44 46 48 50 52 54 56 58	19 20 21 22 23 24 25 26 27	1-2

Domain	Lesson	Focus	Standard(s) References	TE pg	St. Ed. pg	DOK
	Pre 9	Pre-Assessment-Circles & Congruency	8.G.2, 8.G.4	76	33	
	1	Circles		78	35	
	2	Circles	Prerequisite skills and	80	36	
	3	Congruency	scaffolded instruction to	82	37	1-2
	4	Congruency	build readiness for grade level standards and	84	38	
	5	Congruency	instruction.	86	39	
	6	Congruency		88	40	
	Р9	Performance Task #9 – How Do You Make It Co	ongruent? (8.G.2, 8.G.4)	90	41	3
	Post 9	Post-Assessment-Circles & Congruency	8.G.2, 8.G.4	92	42	1-2
	Pre 10	Pre-Assessment-Graphing/Angles/Triangles	8.G.1, 8.G.2, 8.G.5	94	43	
	7	Graphing in the Coordinate Plane		96	45	
	8	Graphing in the Coordinate Plane		98	46	1-2
	9	Graphing in the Coordinate Plane		100	47	
	10	Graphing in the Coordinate Plane		102	48	
	11	Classifying Angles	Prerequisite skills and scaffolded instruction to	104	49	
etry	12	Classifying Angles	build readiness for grade	106	50	
Geometry	13	Classifying Angles	level standards and instruction.	108	51	
Ğ	14	Classifying Triangles	mstruction.	110	52	
	15	Classifying Triangles		112	53	- - -
	16	Determine Unknown Angle Measures		114	54	
	17	Determine Unknown Angle Measures		116	55	
	P10	Performance Task #10 – Angles, Angles, Angles	i! (8.G.5)	118	56	3
	Post 10	Post-Assessment-Graphing/Angles/Triangles	8.G.1, 8.G.2, 8.G.5	120	57	1-2
	Pre 11	Pre-Assessment-Pythagorean Theorem	8.G.6, 8.G.7	122	59	
	18	Pythagorean Theorem		124	61	
	19	Pythagorean Theorem	Prerequisite skills and	126	62	
	20	Pythagorean Theorem	scaffolded instruction to	128	63	1-2
	21	Pythagorean Theorem	build readiness for grade level standards and	130	64	
	22	Pythagorean Theorem	instruction.	132	65	
	23	Pythagorean Theorem		134	66	
	P11	Performance Task #12 – Why Is It Wrong? (8.0	G.6, 8.G.7)	136	67	3
	Post 11	Post-Assessment-Pythagorean Theorem	8.G.6, 8.G.7	138	68	1-2



Sample Lessons





Expressions & Equations

The highlighted lessons are provided as samples.

Domain	Lesson	Focus	Standard(s) References	TE pg	St. Ed. pg	DOK
	Pre 4	Pre-Assessment-Solve & Graph Equations	8.EE.5, 8.EE.6, 8.EE.7	86	41	
	20 Solve Linear Equations			88	43	
ons	21	Solve Linear Equations		90	44	
Equations	22	Solve & Graph Linear Equations	Prerequisite skills and	92	45	
	23	Solve & Graph Linear Equations	scaffolded instruction to build readiness for grade	94	46	1-2
s &	24	Determining Slope	level standards and	96	47	
Expressions	25	Determining Slope instruction.		98	48	
res	26	Using Inverse Operations		100	49	
Exp	27 Using Inverse Operations			102	50	
	P4	Performance Task #4 – What Is Slope? (8.EE.	.5, 8.EE.7)	104	51	3
	Post 4	Post-Assessment-Solve & Graph Equations	8.EE.5, 8.EE.6, 8.EE.7	106	52	1-2

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - L27 - Post-4

Sample Pre-Assessment - Teacher Page

Teacher Lesson Plan

Standards Plus® – Intervention Mathematics – Grade 8				
Domain: Expressions & Equations	Focus: Solve & Graph Equations	Pre-Assessment: 4		

Procedure: Each intervention assessment is designed to be completed independently by the students. Read the directions aloud, and ensure that students understand how to mark their answer choices.

Review: Review the correct answers with students as soon as they are finished.

Answers:

- 1. m = 126
- 2. w = 48
- 3. Horizontal
- 4. $\frac{7}{6}$
- 5. $-\frac{2}{5}$
- 6. C
- 7. A

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - L27 - Post-4

Sample Pre-Assessment - Student Page

Student Page

Standards Plus® – Intervention Mathematics – Grade 8

Domain: Expressions & Equations Focus: Solve & Graph Equations

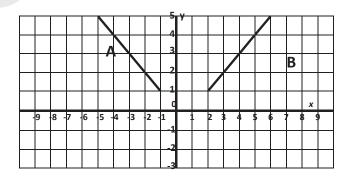
Pre-Assessment: 4

Directions: Solve each problem. Write your answers on the lines.

1. Solve for
$$m$$
. $2m + 63 = 315$ $m =$

Directions: Use the slope formula to determine the slope of lines that contain the given points.

$$n = \frac{y_1 - y_2}{x_1 - x_2}$$



Directions: Determine the equation that defines the lines on the coordinate grid.

6. Which equation defines line A on the coordinate grid?

A.
$$x = y - 1$$

B.
$$x = 1 - y$$

7. Which equation defines line B on the coordinate grid?

A.
$$x = y + 1$$

B.
$$x = y - 1$$

C.
$$x = y$$

Pre-4 - **L20** - L21 - L22 - L23 - L24 - L25 - L26 - L27 - Post-4

Sample Teacher Lesson Plan

Teacher Lesson Plan

Standards Plus® – Intervention Mathematics – Grade 8			
Domain: Expressions & Equations	Focus: Solve Linear Equations	Lesson: #2	

Lesson Objective: *Identify, solve, and graph equations.*

Introduction: Students read problems, complete tables, and write linear equations to explain situations.

Instruction: "Today you will read problems. You will create x and y tables to fit the problem situations. Then you will write the linear equation that fits each situation."

Guided Practice: "Let's look at the example. Ramon makes \$8 an hour washing dishes. Make a table to show his earnings (x) for 8, 12, 16, and 20 hours (y). Below this problem, we see a table that has been started for us. Look at the first row. When Ramon works 8 hours, he makes \$64. When he works 12 hours, how much money does he make? (\$96) When he works 16 hours, how much does he make? (\$128) When he words 20 hours, how much does he make? (\$160) The linear equation is x =8y. This means that to find x, we multiply y by 8."

Independent Practice: "Create a table and write the linear equation for each of the given situations."

Review: After a few minutes, review together.

Closure: "Today you completed tables and wrote linear equations for problem situations."

Answers:

1. (12, .5); (24, 1); (48, 2); (96, 4); x = 24y

2. (5, 1); (25, 5); (50, 10); (100, 20); x = 5y

Each lesson includes a step by step lesson plan.

Pre-4 - **L20** - L21 - L22 - L23 - L24 - L25 - L26 - L27- Post-4

Sample Student Lesson

Student Page

Standards Plus® – Intervention Mathematics – Grade 8				
Domain : Expressions & Equations	Focus: Solve Linear Equations	<u>Lesson</u> : #20		

Example: Ramon makes \$8 an hour washing dishes. Make a table to show his earnings (x) for 8, 12, 16, and 20 hours (y).

Х	у	_
64	8	Linear Equation: $x = 8y$
	12	
	16	
	20	

Each lesson also has an easy to follow student page. **Directions:** Create a table and write the linear equation for each of the given situations.

1. Ramon also tutors kids in math. He makes \$12 every half hour for tutoring. Make a table to show his earnings (x) for $\frac{1}{2}$, 1, 2, and 4 hours (y).

X	y
12	.5
	1
	2

Linear equation:

2. Ramon pays his little sister to do his laundry. He pays her \$5 for each load of laundry that she washes, dries, and folds. Make a table to show what Ramon pays (x) for 1, 5, 10, and 20 loads of laundry (y).

Х	у
5	1
	5
	10
	20

Linear equation:

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - L27 - Post-4

Sample Teacher Lesson Plan

Lessons 21 and 22 are not shown.

Teacher Lesson Plan

Standards Plu		
Topic: Expressions & Equations	Focus: Solve and Graph Linear Equations	<u>Lesson</u> : #23

Lesson Objective: *Identify, solve, and graph linear equations.*

Introduction: Students will identify the linear equation expressed as a line in the coordinate grid.

Instruction: "Today you will look at lines that have been graphed on the coordinate grid. You will determine which linear equation is defined by each line."

Guided Practice: "Let's look at the example. Which equation defines line A on the coordinate grid below? Here we have three answer choices. We can write the coordinate pairs for several points on the line to help us determine the linear equation that is defined by the line. (-9, 9), (-8, 8), (-7, 7), and (-6, 6) are all points on this line. What is the relationship of x to y? (x is negative y) x = -y. Do you see this equation as an answer choice? (C.) Circle answer choice C."

Independent Practice: "Determine the equation that defines the lines on the coordinate grid above."

Review: After a few minutes, review together.

Closure: "Today you identified the linear equation that matched a line graphed in the coordinate grid."

Answers:

1. A

2. B

4. B

Closure

Each lesson

plan includes

the following

direct instruction

components:

Introduction Instruction

> Guided **Practice**

Independent

Practice

Review

3. C

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - L27 - Post-4

Sample Student Lesson

Lessons 21 and 22 are not shown.

Student Page

Standards Plus® – Intervention Mathematics – Grade 8

<u>Topic</u>: Expressions & Equations Focus: Solve and Graph Linear Equations Lesson: #23

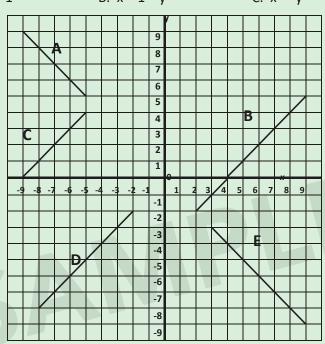
Example: Which equation defines line A on the coordinate grid below?

A.
$$x = y - 1$$

B.
$$x = 1 - y$$

C.
$$x = -y$$

Each student page includes examples for Guided Practice...



Directions: Determine the equation that defines the lines on the coordinate grid above.

A.
$$x = y + 4$$

B.
$$x = y - 4$$
 C. $x = 4y$

C.
$$x = 4v$$

A.
$$x = y + 9$$

B.
$$x = y - 9$$

C.
$$x = -9y$$

3. Line D:

A.
$$x = y - 1$$

B.
$$x = y + 1$$

C.
$$x = y$$

4. Line E:

A.
$$x = y$$

C.
$$x = y - 1$$

...and items to be completed Independent Practice.

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - **L27**- Post-4

Sample Teacher Lesson Plan

Lessons 24-26 are not shown.

Teacher Lesson Plan

Standards Plus® – Intervention Mathematics – Grade 8			
Domain : Expressions & Equations	Focus: Using Inverse Operations	<u>Lesson</u> : #27	

Lesson Objective: Use inverse operations to solve problems.

Introduction: Students will use inverse operations to solve problems in today's lesson.

Instruction: "An equation is a mathematical sentence with an equal sign. In an equation such as 3n = 27, a value of the variable that makes the equation true is called a solution. We can use inverse (opposite) operations to solve for the variable. We can solve equations using inverse operations. To solve or *undo* a multiplication equation, we will use division. To solve or *undo* a division equation, we will use multiplication."

Guided Practice: "Let's complete the examples together. Look at Example A: 6m = 42. We divide both sides of the equation by 6: $6m \div 6 = 42 \div 6$. We simplify: m = 7. We check by substituting the solution for the variable: 6(7) = 42. Now look at Example B:

 $\frac{r}{7}$ = 6. We multiply both sides of the equation by 7: $\frac{r}{7}$ (7) = 6(7). We simplify: r = 42.

We check by substituting the solution for the variable: $\frac{42}{7} = 6$."

Independent Practice: "Use inverse operations to solve each problem."

Review: After a few minutes, review together.

Closure: "Today you used inverse operations to solve problems."

Answers:

- 1. 176
- 2. 20.2
- 3. 120
- 4. 1.4

Each lesson
plan
includes
an answer
key

Sample Student Lesson

Lessons 24-26 are not shown.

Student Page

Standards Plus® – Intervention Mathematics – Grade 8			
<u>Domain</u> : Expressions & Equations	Focus: Using Inverse Operations	<u>Lesson</u> : #27	

Example A: 6m = 42

Step 1: Divide both sides of the equation by 6.

Step 2: Simplify.

Step 3: To check your answer, substitute the solution for the variable.

Example B: $\frac{r}{7} = 6$

Step 1: Multiply both sides of the equation by 7.

Step 2: Simplify.

Step 3: To check your answer, substitute the solution for the variable.

Directions: Use inverse operations to solve each problem.

1.
$$\frac{m}{8} = 22$$

2.
$$3r = 60.6$$

3.
$$\frac{z}{2.5} = 48$$

4.
$$1.2y = 1.68$$

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After
students
complete
Independent
Practice,
review
each item
to check for
understanding.

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - L27 - Post-4

Sample Post-Assessment - Teacher Page

Teacher Lesson Plan

Standards Plus® – Intervention Mathematics – Grade 8				
Domain : Expressions & Equations	Focus: Solve & Graph Equations	Post-Assessment: A4		

Procedure: Each intervention assessment is designed to be completed independently by the students. Read the directions aloud, and ensure that students understand how to mark their answer choices.

Review: Review the correct answers with students as soon as they are finished.

Answers:

- 1. m = 99
- 2. w = 72
- 3. Vertical
- 4. $\frac{8}{10}$ or $\frac{4}{5}$
- 5. $\frac{8}{4}$ or 2
- 6. A
- 7. B

Pre-4 - L20 - L21 - L22 - L23 - L24 - L25 - L26 - L27- Post-4

Sample Post-Assessment - Student Page

Student Page

Standards Plus® – Intervention Mathematics – Grade 8

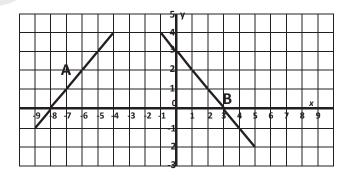
Domain: Expressions & Equations Focus: Solve & Graph Equations Post-Assessment: A4

Directions: Solve each problem. Write your answers on the lines.

2. Solve for w.
$$\frac{w}{6} = 12$$
 $w =$ ______

Directions: Use the slope formula to determine the slope of lines that contain the given points.

$$m = \frac{y_1 - y_2}{x_1 - x_2}$$



Directions: Determine the equation that defines the lines on the coordinate grid.

6. Which equation defines line A on the coordinate grid?

A.
$$x = y - 8$$

B.
$$x = 8 - y$$

C.
$$x = y + 8$$

7. Which equation defines line B on the coordinate grid?

A.
$$y = x + 3$$

B.
$$y = -x + 3$$

C.
$$x = -y + 3$$

Sample Performance Task (DOK 3)

Formative assessments that build on earlier content knowledge and acquired skills. Performance tasks are strategically placed to enhance learning as students apply their knowledge and skills.

Many standards are assessed at this level of rigor on state assessments.

Standards Plus[®] Intervention Mathematics – Grade 8 Expressions & Equations Performance Task #A4

The **slope of a line** tells you how the y value changes as the x value changes.

The comparison of x to y is called a ratio.

You can find the slope of a line if you know two of the points on the line.

Look at the table:

x = y - 4							
(x ₁ , y ₁)	<i>x</i> ₁ = 3	y ₁ = 7	(3, 7)				
(x ₂ , y ₂)	x ₂ = 1	y ₂ = 5	(1, 5)				

It shows two coordinate pairs for the line x = y - 4.

If the value of x is 3, the value of y is 7.

If the value of x is 1, the value of y is 5.

To find the slope of this line, we use the formula: Slope = $\frac{y_1 - y_2}{x_1 - x_2}$.

Slope =
$$\frac{5-7}{1-3} = \frac{-2}{-2} = 1$$



What Educators Say About Standards Plus Intervention...



"Our school ordered the Standards Plus Intervention Materials. We have used it for re-teaching in small groups, after-school intervention groups, English Learner Support groups and Intervention groups during the school day.

I love these materials because they offer re-teaching guidance to help all students (even struggling students) obtain mastery. Many of the intervention students took off academically. Several are on the Honor Roll as 6th and 7th graders and when asked the students believe Standards Plus Intervention was the reason. Everyone agrees Standards Plus is the simple-to-use missing piece that helped guide all our students to better learning.

Thank you Standards Plus for making such a focused well designed, easy to teach program that keeps our teachers and students focused on the standards."

- Academic Coach/Literacy Specialist Lemonwood Elementary, Oxnard School District



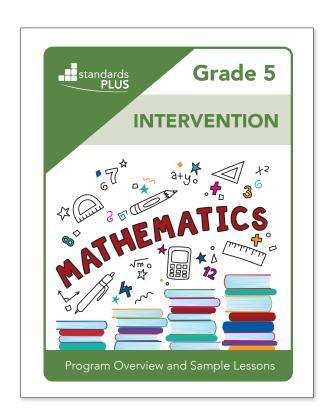
"The 140 teachers using Standards Plus Intervention in our district program are very happy with the materials. We also appreciate all of the attention Standards Plus has given our district over the years. Our students will be the ones who benefit."

- Coordinator of Educational Options

Ceres USD



All Standards Plus purchases include live online teacher training to ensure a successful implementation.



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