

Twin Rivers USD
Grade Eight Common Core Math Pacing
2017-2018

Trimester 2

Pretest Test	November 2
<ul style="list-style-type: none"> • Trimester 2 Pretest Exam Use the information as an additional pacing tool to guide instruction. 	

Unit 5: Rational vs. Irrational

Instructional Window (11 days): Nov. 3 – Nov. 29				
Standard(s)				
<p>8.NS.1: Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.</p>				
<p>8.NS.2: Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g. π^2,). <i>For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</i></p>				
TE pg. #	SJ pg. #	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus
		Lesson 1 Rational vs. Irrational Numbers	8.NS.1	C
		Lesson 2 Rational vs. Irrational Numbers	8.NS.1	P
		Lesson 3 Decimal Expansion	8.NS.1	C
		Lesson 4 Decimal Representation	8.NS.1	MT
		Lesson 5 Repeating Decimals to Fractions	8.NS.1	C
		Lesson 6 Repeating Decimals to Fractions	8.NS.1	P
		Lesson 7 Estimate Irrational Numbers	8.NS.2	C
		Lesson 8 Estimate Irrational Numbers (s)	8.NS.2	P

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		Lesson 9 Compare & Order Irrational Numbers	8.NS.2	P
		Lesson 10 Classify Numbers (<i>s</i>)	8.NS.1, 2	MT
Suggested Unit 5 Assessment Date – November 30 & December 1				

Unit 6: Proportional Relationships, Lines & Linear Equations

Instructional Window (11 days): Dec. 4 – Dec. 18				
Standard(s)				
8.EE.5: Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. <i>For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.</i>				
8.EE.6: Use similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y=mx$ for a line through the origin and the equation $y=mx+b$ for a line intercepting the vertical axis at b .				
TE pg. #	SJ pg. #	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus
		Lesson 1 Compare Proportional Relationships (<i>m</i>)	8.EE.5	C
		Lesson 2 Compare Proportional Relationships (<i>m</i>)	8.EE.5	P
		Lesson 3 Unit Rate as Slope (<i>m</i>)	8.EE.5	C
		Lesson 4 Unit Rate as Slope (<i>m</i>)	8.EE.5	P
		Lesson 5 Linear Equations: $y = mx$ (<i>m</i>)	8.EE.6	C
		Lesson 6 Linear Equations: $y = mx$ (<i>m</i>)	8.EE.6	P
		Lesson 7 Similar Triangles with Slope (<i>m</i>)	8.EE.6	C
		Lesson 8 Similar Triangles with Slope (<i>m</i>)	8.EE.6	P
		Lesson 9 Slope Intercept Form (<i>m</i>)	8.EE.6	C
		Lesson 10 Slope Intercept Form (<i>m</i>)	8.EE.6	P
		Lesson 11 Linear Equations (<i>m</i>)	8.EE.5	MT

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Suggested Unit 6 Assessment Date – December 19 & 20

Unit 7: Functions

Instructional Window (14 days): Jan. 8 – Jan. 29

Standard(s)

8.F.1: Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

8.F.2: Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*

8.F.3: Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4), and (3,9), which are not on a straight line.*

8.F.4: Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

8.F.5: Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or non-linear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

TE pg. #	SJ pg. #	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus
		Lesson 1 Introduction to Functions	8.F.1	C
		Lesson 2 Represent Functions (<i>m</i>)	8.F.1	C
		Lesson 3 Represent Functions (<i>m</i>)	8.F.1	P
		Lesson 4 Linear Functions (<i>m</i>)	8.F.2	C
		Lesson 5 Nonlinear Functions (<i>m</i>)	8.F.2	C
		Lesson 6 Compare Functions: Linear & Nonlinear (<i>m</i>)	8.F.2	P
		Lesson 7 Interpret Linear Functions: $y = mx + b$	8.F.3	C

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		Lesson 8 Interpret Linear Functions: $y = mx + b$ (<i>m</i>)	8.F.3	P
		Lesson 9 Initial Value & Rate of Change	8.F.4	C
		Lesson 10 Initial Value & Rate of Change	8.F.4	P
		Lesson 11 Functional Relationships (<i>m</i>)	8.F.5	P
		Lesson 12 Functions (<i>m</i>)	8.F.	MT
Suggested Unit 7 Assessment Date – January 30 & 31				

Unit 8: Systems of Equations

Instructional Window (13 days): Feb. 1 – Feb. 21				
Standard(s)				
<p>8.EE.8: Analyze and solve pairs of simultaneous linear equations.</p> <ol style="list-style-type: none"> Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. <i>For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.</i> Solve real-world and mathematical problems leading to two linear equations in two variables. <i>For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.</i> 				
TE pg. #	SJ pg. #	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus
		Lesson 1 Systems of Linear Equations with Two Variables (<i>m</i>)	8.EE.8	C
		Lesson 2 Graph Linear Equations (<i>m</i>)	8.EE.8a	C
		Lesson 3 Graph Linear Equations (<i>m</i>)	8.EE.8a	P
		Lesson 4 Substitution (<i>m</i>)	8.EE.8b	C
		Lesson 5 Substitution (<i>m</i>)	8.EE.8b	P
		Lesson 6 Elimination (<i>m</i>)	8.EE.8b	C

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		Lesson 7 Elimination: Add & Subtract (<i>m</i>)	8.EE.8b	P
		Lesson 8 Elimination: Multiply (<i>m</i>)	8.EE.8b	P
		Lesson 9 Word Problems: Systems of Equations (<i>m</i>)	8.EE.8c	P
		Lesson 10 System of Linear Equations (<i>m</i>)	8.EE.8	MT
<i>Suggested</i> OPTIONAL Unit 8 Assessment Date – February 22 & 23				

End of Trimester 2 Assessments

<i>Suggested Review Day</i> for Trimester 2 Benchmark Date – February 26 <i>Suggested</i> Trimester 2 Cumulative Benchmark Date – February 27 & 28 Performance Task – March 1 & 2	

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