Math 7

Unit 1: Integers and Rational Numbers

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
24 Days	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can the properties of operations be used to solve problems involving rational numbers?	Integers and Absolute Value	Students should be able to read and write integers. Students should be able to find the absolute value of an integer.	Lesson 1-1 Relate Integers and their Opposites. SWBAT relate integers, their opposites and their absolute values. enVision 2.0 Grade 7 Pgs. 7-12	Integer Negative integer Positive integer Graph Absolute value Opposites	CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. M07.A-N.1.1.3 Apply properties of operations to multiply and divide rational numbers, including real world contexts; demonstrate that the decimal form of a rational number
	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can the properties of operations be used to solve problems involving rational numbers?	Terminating and Repeating decimals	Students should be able to write fractions as terminating or repeating decimals. Students should be able to write decimals as fractions (including repeating decimals).	Lesson 1-2 Understanding Rational Numbers. SWBAT recognize rational numbers and write them in decimal form. enVision 2.0 Grade 7 Pgs. 13-18	Rational Number Repeating decimals Terminating decimals	terminates or eventually repeats. CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.

						M07.A-N.1.1.3 Apply properties of operations to multiply and divide rational numbers, including real world contexts; demonstrate that the decimal form of a rational number terminates or eventually
						repeats.
						M07.B-E.2.2.1 Solve word problems leading to the form px +q = r and p(x + q) = r where p, q and r are
Ni ma la a ma	Harri san tha	A del laste se un	Students should be	Laccount 2 Add Internet	Onneitee	specific rational numbers.
Numbers, measures,	How can the properties of	Add Integers	able to add integers.	Lesson 1-3 Add Integers	Opposites	CC.2.1.7.E.1 Apply and extend previous
expressions,	operations be		able to add megers.	SWBAT add integers.	Additive inverse	understandings of
equations, and	used to solve			Ü		operations with fractions
inequalities can	problems			enVision 2.0		to operations with rational
represent	involving rational			Grade 7		numbers.
mathematical	numbers?			Pgs. 19-24		
situations and						CC.2.2.7.B.3 Model and
structures in						solve real-world and
many equivalent forms.						mathematical problems by using and connecting
1011113.						numerical. Algebraic,
						and.or graphical
						representaions.
						107 1 11 1 1 1 1
						M07.A-N.1.1.3 Apply
						properties of operations to multiply and divide
						rational numbers,
						including real world
						contexts; demonstrate
						that the decimal form of a
						rational number

	Numbers, measures, expressions, equations, and inequalities can	How can the properties of operations be used to solve problems	Subtract Integers	Students should be able to subtract integers on a number line.	Lesson 1-4 Subtract Integers SWBAT subtract integers.		terminates or eventually repeats. M07.A-N.1.1.2 Represent addition and subtraction on a horizontal or vertical number line. M07.B-E.2.1.1 Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate. CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational
	represent mathematical	involving rational numbers?		Students should be able to subtract	enVision 2.0		numbers.
	situations and			integers.	Grade 7		M07.A-N.1.1.2 Represent
	structures in				Pgs. 25-30		addition and subtraction
	many equivalent			Students should be			on a horizontal or vertical
	forms.			able to find distance between two rational			number line
				numbers on a			M07.A-N.1.1.3 Apply
				number line.			properties of operations
							to multiply and divide
							rational numbers,
							including real world
							contexts; demonstrate
							that the decimal form of a
							rational number
							terminates or eventually
	Niverala a s	Harriage Her	And and Culture	Canada maka ali andal la d	Lassan 4 F Add and		repeats.
	Numbers,	How can the	Add and Subtract	Students should be	Lesson 1-5 Add and		CC.2.1.7.E.1 Apply and
	measures,	properties of operations be	Rational Numbers	able to add and subtract any and all	Subtract Rational Numbers		extend previous understandings of
	expressions,	used to solve		rational numbers.	Numbers		operations with fractions
1					1	l	ODELATIONS WITH HACHOUS 1
	equations, and			Tational numbers.	SWRAT add and subtract		
	inequalities can represent	problems involving rational			SWBAT add and subtract rational numbers.		to operations with rational numbers.

situations and				enVision 2.0		CC.2.2.7.B.3 Model and
				Grade 7		
structures in						solve real-world and
many equivalent				Pgs. 31-36		mathematical problems by
forms.						using and connecting
						numerical. Algebraic,
						and/.or graphical
						representations.
						, op. 600
						M07.A-N.1.1.1 Apply
						properties of operations
						to add and subtract
						rational numbers,
						including real-world
						contexts.
						M07.A-N.1.1.3 Apply
						properties of operations
						to multiply and divide
						rational numbers,
						including real world
						contexts; demonstrate
						that the decimal form of a
						rational number
						terminates or eventually
						repeats.
						M07.A-N.1.1.2 Represent
						addition and subtraction
						on a horizontal or vertical
						number line.
						M07.B-E.2.1.1 Apply
						properties of operations
						to calculate with numbers
						in any form; convert
						between forms as
						appropriate.
Numbers,	How can the	Multiply Integers	Students should be	Lesson 1-6 Multiply	Product	CC.2.1.7.E.1 Apply and
measures,	properties of		able to multiply	Integers		extend previous
expressions,	operations be		integers on a number		Factors	understandings of
equations, and	used to solve		line.	SWBAT multiply integers		operations with fractions
inequalities can	problems					to operations with rational
represent	1			enVision 2.0		numbers.
гергезепе				C11 V 151011 Z.10		1141112013.

mathematical	involving rational		Student should be	Grade 7	
situations and	numbers?		able to multiply	Pgs. 39-44	CC.2.2.7.B.3 Model and
structures in			integers.	- ger ee i	solve real-world and
many equivalent					mathematical problems by
forms.			Students should be		using and connecting
1011113.			able to use		numerical. Algebraic,
			properties to prove		and/.or graphical
			the rules for		representations.
					representations.
			multiplying integers.		N407 A NI 1 1 2 Ammh.
			Students should be		M07.A-N.1.1.3 Apply
					properties of operations
			able to use area		to multiply and divide
			models to multiply		rational numbers,
			integers.		including real world
					contexts; demonstrate
					that the decimal form of a
					rational number
			•		terminates or eventually
					repeats.
					M07.B-E.2.1.1 Apply
					properties of operations
					to calculate with numbers
					in any form; convert
					between forms as
					appropriate.
Numbers,	How can the	Multiply Rational	Students should be	Lesson 1-7 Multiply	CC.2.1.7.E.1 Apply and
· ·	properties of	Numbers	able to multiply	Rational Numbers	extend previous
measures, expressions,	operations be	Numbers	fractions and mixed	Rational Numbers	understandings of
	used to solve		numbers.	SWBAT multiply rational	operations with fractions
equations, and			numbers.		•
inequalities can	problems			numbers	to operations with rational
represent	involving rational				numbers.
mathematical	numbers?			enVision 2.0	66.3.3.7.0.3.4.4.4.4
situations and			•	Grade 7	CC.2.2.7.B.3 Model and
structures in				Pgs. 45-50	solve real-world and
many equivalent					mathematical problems by
forms.					using and connecting
					numerical. Algebraic,
					and/.or graphical
					representations.

					 M07.A-N.1.1.3 Apply
					properties of operations
					to multiply and divide
					rational numbers,
					including real world
					contexts; demonstrate
					that the decimal form of a
					rational number
					terminates or eventually
					repeats.
					M07.B-E.2.1.1 Apply
					properties of operations
					to calculate with numbers
					in any form; convert
					between forms as
					appropriate.
Numbers,	How can the	Divide Integers	Students should be	Lesson 1-8 Divide	CC.2.1.7.E.1 Apply and
measures,	properties of		able to divide	Integers	extend previous
expressions,	operations be		integers		understandings of
equations, and	used to solve			SWBAT divide integers	operations with fractions
inequalities can	problems				to operations with rational
represent	involving rational			enVision 2.0	numbers.
mathematical	numbers?			Grade 7	
situations and				Pgs. 51-56	CC.2.2.7.B.3 Model and
structures in					solve real-world and
many equivalent					mathematical problems by
forms.					using and connecting
					numerical. Algebraic,
					and/.or graphical
					representations.
					M07.A-N.1.1.3 Apply
					properties of operations
					to multiply and divide
					rational numbers,
					including real world
					contexts; demonstrate
					that the decimal form of a
					rational number
					terminates or eventually
					repeats.

						M07.B-E.2.1.1 Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate.
Numbers, measures expression equations inequalitic represent mathema situations structures many equiforms.	operations be used to solve problems involving rational numbers?	Divide fractions	Students should be able to divide fractions and mixed numbers.	Lesson 1-9 Divide Rational Numbers SWBAT divide rational numbers enVision 2.0 Grade 7 Pgs. 57-62	Reciprocal Multiplicative Inverse Complex Fraction	CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical. Algebraic, and/.or graphical representations. M07.A-N.1.1.3 Apply properties of operations to multiply and divide rational numbers, including real world contexts; demonstrate that the decimal form of a rational number terminates or eventually repeats. M07.B-E.2.1.1 Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate.

Numbers,	How can the	Divide fractions	Students should be	Lesson 1-10 Solve	CC.2.1.7.E.1 Apply and
measures,	properties of		able to add, subtract,	Problems with Rational	extend previous
expressions,	operations be		multiply and/or	Numbers	understandings of
equations, and	used to solve		divide rational		operations with fractions
inequalities can	problems		numbers.	SWBAT solve problems	to operations with rational
represent	involving rational			with rational numbers	numbers.
mathematical	numbers?		Students will		
situations and			determine which	enVision 2.0	CC.2.2.7.B.3 Model and
structures in			operation to use in a	Grade 7	solve real-world and
many equivalent			real-world problem.	Pgs. 63-68	mathematical problems by
forms.					using and connecting
					numerical. Algebraic,
					and/.or graphical
					representations.
					M07.A-N.1.1.3 Apply
					properties of operations
					to multiply and divide
					rational numbers,
					including real world
					contexts; demonstrate
					that the decimal form of a
					rational number
					terminates or eventually
					repeats.
					M07.B-E.2.1.1 Apply
					properties of operations
					to calculate with numbers
					in any form; convert
					between forms as
					appropriate.

Review Unit 1 Integers and Rational Numbers – 1 Day

Test Common Assessment: Unit 1 Integers and Rational Numbers – 1 Day

Unit 2: Analyze and Use Proportional Relationships

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
16 Days	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can you recognize and represent proportional relationships and use them to solve problems?	Ratios and Proportional Relationships	Students should be able to determine and compare unit rates.	Lesson 2-1 Connect Ratios, Rates, and Unit Rates SWBAT use ratio concepts and reasoning to solve multi-step problems. enVision 2.0 Grade 7 Pgs. 85-90	Rate Unit Rate Ratio	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.3 Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can you recognize and represent proportional relationships and use them to solve problems?	Ratios and Proportional Relationships	Students should be able simplify complex fractions and find unit rates.	Lesson 2-2 Determine Unit Rates with Ratios of Fractions SWBAT use ratio concepts and reasoning to solve multi-step problems. enVision 2.0 Grade 7 Pgs. 91-96	Complex fractions Unit Rate	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measures in like or different units.
	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and	How can you recognize and represent proportional relationships and use them to solve problems?	Ratios and Proportional Relationships	Students should be able to identify proportional and not proportional relationships using equivalent ratios	Lesson 2-3 Understand Proportional Relationships: Equivalent Ratios SWBAT test for equivalent ratios to decide whether	Proportional Not proportional Equivalent ratios Proportional Relationship	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.2 Determine whether two quantities

structures in many equivalent forms.				quantities are in a proportional relationship. enVision 2.0 Grade 7 Pgs. 97-102		are proportionally related (e.g., by testing for equivalent ratios in a table, graphing on a coordinate plane and observing whether the graph is straight line through the origin. M07.A-R.1.1.3 Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and
Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can you recognize and represent proportional relationships and use them to solve problems?	Ratios and Proportional Relationships	Students should be able to use find the constant of proportionality and use it to describe proportional relationships.	Lesson 2-4 Describe Proportional Relationships: Constant of Proportionality SWBAT use the constant of proportionality in an equation to represent a proportional relationship. enVision 2.0 Grade 7 Pgs. 103-108	Proportions Independent Variable Dependent Variable Constant of Proportionality	verbal descriptions of proportional relationships. CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.3 Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. M07.A-R.1.1.4 Represent proportional relationships by equations. (Ex. If the cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t =

Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can you recognize and represent proportional relationships and use them to solve problems?	Ratios and Proportional Relationships	Students should be able to identify proportional and not proportional relationships by graphing on the coordinate plane.	Lesson 2-5 Graph Proportional Relationships SWBAT use a graph to determine whether two quantities are proportional. enVision 2.0 Grade 7 Pgs. 115-120	Coordinate plane Quadrants Ordered pairs x-coordinate y-coordinate y-axis	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.2 Determine whether two quantities are proportionally related(e.g., by testing for equivalent ratios in a table, graphing on a
Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent	How can you recognize and represent proportional relationships and use them to solve problems?	Ratios and Proportional Relationships	Students should be able to use proportions to solve problems.	Lesson 2-6 Apply Proportional Reasoning to Solve Problems SWBAT determine whether a relationship is proportional and use representations to solve problems.	x-axis origin Proportions Cross products	coordinate plane and observing whether the graph is straight line through the origin. CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.3 Identify the constant of proportionality (unit rate) in tables, graphs,
forms.				enVision 2.0 Grade 7 Pgs. 121-126		equations, diagrams, and verbal descriptions of proportional relationships. M07.A-R.1.1.4 Represent proportional relationships by equations. (Ex. If the cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.

Review Common Assessment: Unit 2 Apply and Use Proportional Relationships – 1 Day

Test Common Assessment: Unit 2 Apply and Use Proportional Relationships – 1 Day

Unit 3: Analyze and Solve Percent Problems

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
16 Days	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can percents show proportional relationships between quantities and be used to solve problems?	Percent	Students should be able to find and analyze the percent of a number.	Lesson 3-1 Analyze Percents of Numbers SWBAT understand, find, and analyze percents of numbers. enVision 2.0 Grade 7 Pgs. 137-142	Percent	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations. M07.A-R.1.1.6 Use proportional relationships to solve multi-step ratio and percent problems (Ex. Simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease.)
	Numbers, measures, expressions, equations, and	How can percents show proportional relationships	Percent and Proportional Relationships	Students should be able to use knowledge of proportions to find	Lesson 3-2 Connect Percent and Proportion	Percent proportion	CC.2.1.7.D.1 Analyze proportional relationships and use them to model

1	1	1	_		1	,
inequalities can	between		percent, and use	SWBAT use proportions		and solve real-world and
represent	quantities and be		percent proportion	to solve percent		mathematical problems.
mathematical	used to solve		to find missing	problems.		
situations and	problems?		information.			M07.A-R.1.1.6 Use
structures in				enVision 2.0		proportional relationships
many equivalent				Grade 7		to solve multi-step ratio
forms.				Pgs. 143-148		and percent problems
						(Ex. Simple interest, tax,
						markups and markdowns,
						gratuities and
						commissions, fees, percent
						increase and decrease.)
Numbers,	How can percents	Percent Equation	Students should be	Lesson 3-3 Represent	Percent	CC.2.1.7.D.1 Analyze
measures,	show	Tercent Equation	able to use the	and Use the Percent	Equation	proportional relationships
expressions,	proportional		percent equation.	Equation	Equation	and use them to model
equations, and	relationships		percent equation.	Equation		and solve real-world and
inequalities can	between			SWBAT represent and		mathematical problems.
· ·	quantities and be			solve percent problems		mathematical problems.
represent mathematical	•					CC.2.2.7.B.3 Model and
	used to solve problems?			using equations.		solve real-world and
situations and	problems?					
structures in				enVision 2.0		mathematical problems by
many equivalent				Grade 7		using and connecting
forms.				Pgs. 149-154		numerical, algebraic,
						and/or graphical
						representations.
						M07.A-R.1.1.4 Represent
						proportional relationships
						by equations. (Ex. If the
						cost t is proportional to
						the number n of items
						purchased at a constant
						price p, the relationship
						between the total cost
						and the number of items
						can be expressed as t =
						pn.
						M07.A-R.1.1.6 Use
						proportional relationships
						to solve multi-step ratio
						and percent problems

Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can percents show proportional relationships between quantities and be used to solve problems?	Percent Change & Percent Error	Students should be able to find the percent change. Student should be able to find the percent error.	Lesson 3-4 Solve Percent Change and Percent Error Problems SWBAT solve problems involving percent change and percent error. enVision 2.0 Grade 7 Pgs. 157-162	Percent change Percent increase Percent decrease Percent error	(Ex. Simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease.) M07.B-E.2.1.1 Apply properties of operations to calculate with numbers in any form, convert between forms when appropriate. (Ex., If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour or \$2.50, for a new salary of \$27.50 an hour. (or 1.1 x \$25 = \$27.50) CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations. M07.A-R.1.1.6 Use proportional relationships to solve multi-step ratio
torms.				PgS. 157-102		and/or graphical representations. M07.A-R.1.1.6 Use proportional relationships

						M07.B-E.2.1.1 Apply properties of operations to calculate with numbers in any form, convert between forms when appropriate. (Ex., If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour or \$2.50, for a new salary of \$27.50 an hour. (or 1.1 x \$25 = \$27.50)
Numbers, measures, expressior equations, inequalities represent mathemat situations structures many equiforms.	and relationships between quantities and be used to solve problems?	Markup and Markdown Problems	Students should be able to solve problems involving sales tax, tips, markup, and markdown	Lesson 3-5 Solve Markup and Markdown Problems SWBAT solve problems involving percent markup and markdown enVision 2.0 Grade 7 Pgs. 167-172	Sales tax Tip Gratuity Markup Markdown Selling price	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations. MO7.A-R.1.1.6 Use proportional relationships to solve multi-step ratio and percent problems (Ex. Simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease.) MO7.B-E.2.1.1 Apply properties of operations to calculate with numbers in any form, convert

						between forms when
						appropriate.(Ex., If a
						woman making \$25 an
						hour gets a 10% raise, she
						will make an additional
						1/10 of her salary an hour
						or \$2.50, for a new salary
						of \$27.50 an hour. (or 1.1
						x \$25 = \$27.50)
Numbers,	How can percents	Simple Interest	Students should be	Lesson 3-6 Solve Simple	Principle	CC.2.1.7.D.1 Analyze
measures,	show	Problems	able to solve	Interest Problems		proportional relationships
expressions,	proportional		problems involving		Simple Interest	and use them to model
equations, and	relationships		simple interest.	SWBAT apply percent		and solve real-world and
inequalities can	between			reasoning to solve		mathematical problems.
represent	quantities and be			simple interest		
mathematical	used to solve			problems.		CC.2.2.7.B.3 Model and
situations and	problems?					solve real-world and
structures in				enVision 2.0		mathematical problems by
many equivalent				Grade 7		using and connecting
forms.				Pgs. 173-178		numerical, algebraic,
						and/or graphical
						representations.
						M07.A-R.1.1.6 Use
						proportional relationships
						to solve multi-step ratio
						and percent problems.
						(Ex. Simple interest, tax,
						markups and markdowns,
						gratuities and
						commissions, fees, percent
						increase and decrease.)
						M07.B-E.2.1.1 Apply
						properties of operations
						to calculate with numbers
						in any form, convert
						between forms when
						appropriate.(Ex., If a
						woman making \$25 an
						hour gets a 10% raise, she
						will make an additional

			1/10 of her salary an hour or \$2.50, for a new salary
			of \$27.50 an hour. (or 1.1
			x \$25 = \$27.50)

Review Unit 3 Apply and Solve Percent Problems – 1 Day

Test Common Assessment: Unit 3 Apply and Solve Percent Problems -1 Day

Unit 4: Generate Equivalent Expressions

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
20 Days	There are some mathematical relationships that are always true, and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities	How can properties of operations help to generate equivalent expressions that can be used in solving problems?	Writing and Evaluating Expressions	Students will be able to write and evaluate algebraic expressions.	Lesson 4-1 Write and Evaluate Algebraic Expressions SWBAT write and evaluate algebraic expressions. enVision 2.0 Grade 7 Pgs. 189-194	Expressions Evaluate	CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. M07.B-E.1.1.1 Apply properties of operations to add, subtract, factor, and expand linear expressions with rational numbers.
	There are some mathematical relationships that are always true, and these	How can properties of operations help to generate equivalent	Equivalent Expressions	Students will be able to identify and use mathematical properties to simplify	Lesson 4-2 Generate Equivalent Expressions	Equivalent Expressions Commutative Property	CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions.

relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities	expressions that can be used in solving problems?		algebraic expressions.	SWBAT write and evaluate algebraic expressions. enVision 2.0 Grade 7 Pgs. 195-200	Associative Property Distributive Property Counter example	M07.B-E.1.1.1 Apply properties of operations to add, subtract, factor, and expand linear expressions with rational numbers.
There are some mathematical relationships that are always true, and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities	How can properties of operations help to generate equivalent expressions that can be used in solving problems?	Simplifying Expressions	Students will be able to simplify algebraic expressions.	Lesson 4-3 Simplify Expressions SWBAT use properties of operations to simplify expressions. enVision 2.0 Grade 7 Pgs. 201-206	Term Like term Constant Simplest Form Combine Like Terms	CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. M07.B-E.1.1.1 Apply properties of operations to add, subtract, factor, and expand linear expressions with rational numbers.
There are some mathematical relationships that are always true, and these relationships are used as the rules of arithmetic and algebra and are useful for	How can properties of operations help to generate equivalent expressions that can be used in solving problems?	Expanding Expressions	Students will be able to apply the Distributive Property to simplify and rewrite algebraic expressions.	Lesson 4-4 Expand Expressions SWBAT expand expressions using the Distributive Property enVision 2.0 Grade 7 Pgs. 207-212	Distributive Property Expand	CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. M07.B-E.1.1.1 Apply properties of operations to add, subtract, factor, and expand linear expressions with rational numbers.

T	T	1	1	1	1	1
writing						
equivalent						
forms of						
expressions and						
solving						
equations and						
inequalities						
There are some	How can	Factor Expressions	Students will be able	Lesson 4-5 Factor	Factor	CC.2.2.7.B.1 Apply
mathematical	properties of	'	to use properties of	Expressions		properties of operations
relationships	operations help		mathematics to	,,	Common Factor	to generate equivalent
that are always	to generate		factor linear	SWBAT use common		expressions.
true, and these	equivalent		expressions.	factors and the	Factored form	CAP. 655.61.51
relationships are	expressions that		CAPI COSTOTIO	Distributive Property to	Tuccorea form	M07.B-E.1.1.1 Apply
used as the	can be used in			factor expressions		properties of operations
rules of	solving			Tactor expressions		to add, subtract, factor,
arithmetic and	problems?			enVision 2.0		and expand linear
algebra and are	problems:			Grade 7		expressions with rational
useful for						numbers.
				Pgs. 213-218		numbers.
writing						
equivalent						
forms of						
expressions and						
solving						
equations and						
inequalities.						
There are some	How can	Add Expressions	Students will be able	Lesson 4-6 Add		CC.2.2.7.B.1 Apply
mathematical	properties of		to add linear	Expressions		properties of operations
relationships	operations help		expressions.			to generate equivalent
that are always	to generate			SWBAT add expressions		expressions.
true, and these	equivalent			that represent real-world		
relationships are	expressions that			problems.		M07.B-E.1.1.1 Apply
used as the	can be used in					properties of operations
rules of	solving			enVision 2.0		to add, subtract, factor,
arithmetic and	problems?			Grade 7		and expand linear
algebra and are				Pgs. 225-230		expressions with rational
useful for				_		numbers.
writing						
equivalent						
forms of						
expressions and						
solving						
 JUIVIIIE	1	1	1			

equations and					
inequalities					
There are some	How can	Subtract Expressions	Students will be able	Lesson 4-7 Subtract	CC.2.2.7.B.1 Apply
mathematical	properties of		to subtract linear	Expressions	properties of operations
relationships	operations help		expressions.		to generate equivalent
that are always	to generate			SWBAT subtract	expressions.
true, and these	equivalent			expressions using	
relationships are	expressions that			properties of operations.	M07.B-E.1.1.1 Apply
used as the	can be used in				properties of operations
rules of	solving			enVision 2.0	to add, subtract, factor,
arithmetic and	problems?			Grade 7	and expand linear
algebra and are				Pgs. 231-236	expressions with rational
useful for					numbers.
writing					
equivalent					
forms of					
expressions and					
solving					
equations and					
inequalities					
There are some	How can	Analyzing Equivalent	Students will be able	Lesson 4-8 Simplify	CC.2.2.7.B.1 Apply
mathematical	properties of	Expressions	to analyze equivalent	Expressions	properties of operations
relationships	operations help		algebraic		to generate equivalent
that are always	to generate		expressions.	SWBAT use an	expressions.
true, and these	equivalent			equivalent expression to	
relationships are	expressions that			find new information.	M07.B-E.1.1.1 Apply
used as the	can be used in				properties of operations
rules of	solving			enVision 2.0	to add, subtract, factor,
arithmetic and	problems?			Grade 7	and expand linear
algebra and are				Pgs. 237-242	expressions with rational
useful for					numbers.
writing					
equivalent					
forms of					
expressions and					
solving					
equations and					
inequalities					

Review Unit 4 Generate Equivalent Expressions – 1 Day

Test Common Assessment: Unit 4 Generate Equivalent Expressions – 1 Day

Unit 5: Solve Problems Using Equations and Inequalities

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
20 Days	There are some mathematical relationships that are always true, and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can you solve real-world and mathematical problems with numerical and algebraic equations and inequalities?	Writing Equations	Students will be able to write two-step equations.	Lesson 5-1 Write Two- Step Equations SWBAT represent a problem with a two-step equation. enVision 2.0 Grade 7 Pgs. 253-258		CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic and/or graphical representations. M07.B-E.2.2.1 Solve word problems leading to equations of the form px + q = r and p(x + q) = r, where p, q and r are specific rational numbers.
	There are some mathematical relationships that are always true, and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent	How can you solve real-world and mathematical problems with numerical and algebraic equations and inequalities?	Solve Equations	Students will be able to solve two-step equations.	Lesson 5-2 Solve Two- Step Equations SWBAT solve a problem with a two-step equation. enVision 2.0 Grade 7 Pgs. 259-264	Two-Step Equation Isolate the Variable	CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic and/or graphical representations. M07.B-E.2.2.1 Solve word problems leading to equations of the form px + q = r and p(x + q) = r,

ex _l sol	rms of cpressions and olving quations and						where p, q and r are specific rational numbers
l .	equalities.						
ma rel tha tru rel uso rul	nere are some athematical elationships at are always ue, and these elationships are sed as the eles of ithmetic and	How can you solve real-world and mathematical problems with numerical and algebraic equations and inequalities?	Distributing & Solving Equations	Students will be able to solve two-step equations of the form $p(x + q) = r$.	Lesson 5-3 Solve Equations using the Distributive Property SWBAT use the Distributive Property to solve equations. enVision 2.0	Two-Step Equation	CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic and/or graphical representations. MO7.B-E.2.2.1 Solve word
us wr eq for ex sol eq ine	gebra and are seful for riting quivalent rms of expressions and solving quations and equalities.	·			Grade 7 Pgs. 265-270		problems leading to equations of the form px + q = r and p(x + q) = r, where p, q and r are specific rational numbers
ma rel tha tru rel uso rul ari	nere are some athematical elationships at are always ue, and these elationships are sed as the eles of ithmetic and gebra and are	How can you solve real-world and mathematical problems with numerical and algebraic equations and inequalities?	Algebraic Inequalities (Add/Subtract)	Students will be able to solve inequalities by using the Addition and Subtraction Properties of Inequality.	Lesson 5-4 Solve Inequalities using Addition or Subtraction SWBAT solve inequalities using addition or subtraction. enVision 2.0 Grade 7	Subtraction Property of Inequality Addition Property of Inequality.	CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic and/or graphical representations. M07.B-E.2.2.2 Solve word problems leading to
uso wr eq for ex sol eq	seful for riting quivalent arms of spressions and putting quations and equalities.				Pgs. 273-278		inequalities of the form px + q > r or px + q < r, where p, q and r are specific rational numbers and graph the solution set of the inequality.

There are so mathematics relationships that are always true, and the relationships used as the rules of arithmetic as algebra and useful for writing equivalent forms of expressions solving equations ar inequalities.	solve real-world and mathematical problems with numerical and algebraic equations and inequalities?	Algebraic Inequalities (Multiply/Divide)	Students will be able to solve inequalities by using the Multiplication or Division Properties of Inequality.	Lesson 5-5 Solve Inequalities using Multiplication or Division SWBAT solve inequalities using multiplication or division. enVision 2.0 Grade 7 Pgs. 279-284	Multiplication Property of Inequality Division Property of Inequality.	CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic and/or graphical representations. M07.B-E.2.2.2 Solve word problems leading to inequalities of the form px + q > r or px + q < r , where p, q and r are specific rational numbers and graph the solution set of the inequality.
There are so mathematical relationships that are always true, and the relationships used as the rules of arithmetic all algebra and useful for writing equivalent forms of expressions solving equations arinequalities.	solve real-world and mathematical problems with numerical and algebraic equations and inequalities?	Algebraic Inequalities (Two-Step)	Students will be able to solve two-step inequalities.	Lesson 5-6 Solve Two- Step Inequalities SWBAT write and solve two-step inequalities. enVision 2.0 Grade 7 Pgs. 289-294		CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic and/or graphical representations. M07.B-E.2.2.1 Solve word problems leading to equations of the form px + q = r and p(x + q) = r, where p, q and r are specific rational numbers
There are so mathematics relationships that are always true, and the relationships	solve real-world and mathematical se problems with	Algebraic Inequalities (Multi-Step)	Students will be able to solve two-step inequalities.	Lesson 5-6 Solve Multi- Step Inequalities SWBAT solve inequalities that require multiple steps.		CC.2.2.7.B.3 Model and solve real world and mathematical problems by using and connecting numerical, algebraic

ι	used as the	algebraic			and/or graphical
r	rules of	equations and		enVision 2.0	representations.
a	arithmetic and	inequalities?		Grade 7	
a	algebra and are			Pgs. 295-300	M07.B-E.2.2.1 Solve word
ι	useful for				problems leading to
v	writing				equations of the form px +
	equivalent				q = r and $p(x + q) = r$,
f	forms of				where p, q and r are
	expressions and				specific rational numbers
s	solving				
6	equations and				
i	inequalities.				

Review Common Assessment: Unit 5 Equations & Inequalities – 1 Day

Test Common Assessment: Unit 5 Equations & Inequalities – 1 Day

Unit 6: Use Sampling to Draw Inferences about Populations

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
12 Days	Some questions can be answered by collecting, representing, and analyzing data, and the question to be answered determines the data to be collected, how best to collect it, and how best to represent it.	How can sampling be used to draw inferences about one or more populations?	Representative Samples	Students should be able to predict actions of a larger group by using a sample.	Lesson 6-1 Populations and Samples SWBAT determine if a sample is representative of a population. enVision 2.0 Grade 7 Pgs. 313-318	Population Sample Representative Sample Random Sample	CC.2.4.7.B.1 Draw inferences about populations based on random sampling concepts. M07.D-S.1.1.1 Determine whether a sample is a random sample given a real world situation. M07.D-S.1.1.2 Use data from a random sample to draw inferences about a population with a

Some questions can be answered by collecting, representing, and analyzing data, and the question to be answered determines the data to be collected, how best to collect it, and how best to represent it.	How can sampling be used to draw inferences about one or more populations?	Valid Inferences	Students should be able to determine whether sample methods are valid.	Lesson 6-2 Draw Inferences from Data SWBAT make inferences about a population from a sample data set. enVision 2.0 Grade 7 Pgs. 319-326	Inference Valid Inference	unknown characteristic of interest. (Ex.1 Estimate the mean word length in a book by randomly sampling words form the book. Ex2. Predict the winner of a school election based on randomly sampled survey data.) CC.2.4.7.B.1 Draw inferences about populations based on random sampling concepts. M07.D-S.1.1.1 Determine whether a sample is a random sample given a real world situation. M07.D-S.1.1.2 Use data from a random sample to draw inferences about a population with a unknown characteristic of interest. (Ex.1 Estimate the mean word length in a book by randomly sampling words form the book. Ex2. Predict the winner of a school election based on randomly sampled survey data.)
Some questions can be answered by collecting, representing, and analyzing data, and the question to be answered	How can sampling be used to draw inferences about one or more populations?	Comparative Inferences	Students should be able to draw inferences using data.	Lesson 6-3 Make Comparative Inferences about Populations SWBAT draw comparative inferences about two populations using median and interquartile range (IQR)	Median Interquartile Range Box & Whisker Plot	CC.2.4.7.B.1 Draw inferences about populations based on random sampling concepts. M07.D-S.1.1.1 Determine whether a sample is a

determines the				I		randam sample gives :
						random sample given a
data to be				enVision 2.0		real world situation.
collected, how				Grade 7		
best to collect it,				Pgs. 329-334		M07.D-S.1.1.2 Use data
and how best to						from a random sample to
represent it.						draw inferences about a
						population with a
						unknown characteristic of
						interest. (Ex.1 Estimate
						the mean word length in a
						book by randomly
						sampling words form the
						book. Ex2. Predict the
						winner of a school election
						based on randomly
						sampled survey data.)
Some questions	How can	Comparative	Students should be	Lesson 6-4 Make More	Mean	CC.2.4.7.B.1 Draw
can be	sampling be used	Inferences	able to draw	Comparative Inferences		inferences about
answered by	to draw		inferences using	about Populations	Mode	populations based on
collecting,	inferences about		data.			random sampling
representing,	one or more			SWBAT compare	Range	concepts.
and analyzing	populations?			populations using the		
data, and the				mean, median, mode,	Mean Absolute	M07.D-S.1.1.1 Determine
question to be				range, interquartile	Deviation	whether a sample is a
answered				range, and mean		random sample given a
determines the				absolute deviation.		real world situation.
data to be						
collected, how				enVision 2.0		M07.D-S.1.1.2 Use data
best to collect it,				Grade 7		from a random sample to
and how best to				Pgs. 335-340		draw inferences about a
represent it.						population with a
						unknown characteristic of
						interest. (Ex.1 Estimate
						the mean word length in a
						book by randomly
						sampling words form the
						book. Ex2. Predict the
						winner of a school election
						based on randomly
						sampled survey data.)

Review Unit 6 Population & Sampling – 1 Day

Test Common Assessment: Unit 6 Population & Sampling – 1 Day

Unit 7: Probability

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
18 Days	The likelihood of an event occurring can be described numerically and used to make predictions.	How can you investigate chance processes and develop, use, and evaluate probability models?	Simple Probability	Students should be able to find and interpret the probability of simple events.	Lesson 7-1 Understand Likelihood and Probability SWBAT describe the likelihood that an event will occur. enVision 2.0 Grade 7 Pgs. 356-360	Probability Outcome	CC.2.4.7.B.3 Investigate the chance processes and develop, use, and evaluate probability models. M07.D-S.3.1.1 Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible. (i.e., a probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.)
	The likelihood of an event occurring can be described numerically and used to make predictions.	How can you investigate chance processes and develop, use, and evaluate probability models?	Theoretical Probability	Students should be able to find and compare experimental and theoretical probabilities.	Lesson 7-2 Understand Theoretical Probability SWBAT determine the theoretical probability of an event. enVision 2.0	Event Theoretical probability	CC.2.4.7.B.3 Investigate the chance processes and develop, use, and evaluate probability models. M07.D-S.3.1.1 Predict or determine whether some outcomes are certain,

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				Grade 7		more likely, less likely,
				Pgs. 361-366		equally likely, or
						impossible. (i.e., a
						probability near 0
						indicates an unlikely
						event, a probability
						around ½ indicates an
						event that is neither
						unlikely nor likely, and a
						probability near 1
						indicates a likely event.)
						,,
						M07.D-S.3.2.1 Determine
						the probability of a chance
						event given the relative
						frequency. Predict the
						approximate relative
						frequency given the
						probability. (Ex. When
						rolling a number cube 600
						times, predict that a 3 or
						six would be rolled roughly
						200 times but probably
						not exactly 200 times.)
						M07.D-S.3.2.2 Find the
						probability of a simple
						event, including the
						probability of a simple
						event not occurring. (Ex.
						What is the probability of
						not rolling a 1 on a
						number cube?)
The likelihood of	How can you	Experimental	Students should be	Lesson 7-3 Understand	Relative Frequency	CC.2.4.7.B.3 Investigate
an event	investigate	Probability	able to find and	Experimental Probability	Relative Hequelity	the chance processes and
occurring can be	chance processes	Trobability	compare	Experimental Flobability	Experimental	develop, use, and evaluate
described	and develop, use,		experimental and	SWBAT determine the	probability	probability models.
numerically and	and evaluate		theoretical	experimental probability	ριουαυπτή	probability inducts.
•						M07 D C 2 1 1 Dradiet
used to make	probability		probabilities.	of an event.		M07.D-S.3.1.1 Predict or
predictions.	models?					determine whether some
				enVision 2.0		outcomes are certain,
				Grade 7		more likely, less likely,

	I				I	
				Pgs. 367-372		equally likely, or
						impossible. (i.e., a
						probability near 0
						indicates an unlikely
						event, a probability
						around ½ indicates an
						event that is neither
						unlikely nor likely, and a
						probability near 1
						indicates a likely event.)
						M07.D-S.3.2.1 Determine
						the probability of a chance
						event given the relative
						frequency. Predict the
						approximate relative
						frequency given the
						probability. (Ex. When
						rolling a number cube 600
						times, predict that a 3 or
						six would be rolled roughly
						200 times but probably
						not exactly 200 times.)
						M07.D-S.3.2.2 Find the
						probability of a simple
						event, including the
						probability of a simple
						event not occurring. (Ex.
						What is the probability of
						not rolling a 1 on a
						number cube?)
The likelihood of	How can you	Simulations and	Students should be	Lesson 7-4 Understand	Probability Model	CC.2.4.7.B.3 Investigate
an event	investigate	Probability	able to perform	Probability Models		the chance processes and
occurring can be	chance processes		probability		Sample Space	develop, use, and evaluate
described	and develop, use,		simulations to model	SWBAT use probability		probability models.
numerically and	and evaluate		real-world situations	models to find		
used to make	probability		involving uncertainty.	probabilities of events.		M07.D-S.3.2.3 Find
predictions.	models?					probabilities of
				enVision 2.0		independent compound
				Grade 7		events using organized
				Pgs. 373-378		

The likelihood of an event occurring can be described numerically and used to make predictions.	How can you investigate chance processes and develop, use, and evaluate probability models?	Outcomes of Compound Events.	Students should be able to use multiplication to count outcomes and find probabilities.	Lesson 7-5 Determine Outcomes of Compound Events SWBAT find all possible outcomes of compound event. enVision 2.0 Grade 7 Pgs. 385-390	Compound event	lists, tables, tree diagrams, and simulations. CC.2.4.7.B.3 Investigate the chance processes and develop, use, and evaluate probability models. M07.D-S.3.2.3 Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulations.
The likelihood of an event occurring can be described numerically and used to make predictions.	How can you investigate chance processes and develop, use, and evaluate probability models?	Probability of Compound Events.	Students should be able to use multiplication to count outcomes and find probabilities.	Lesson 7-6 Find Probabilities of Compound Events SWBAT find the probability of a compound event. enVision 2.0 Grade 7 Pgs. 391-396	Compound event Tree Diagram Organized List Table	CC.2.4.7.B.3 Investigate the chance processes and develop, use, and evaluate probability models. M07.D-S.3.2.3 Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulations.
The likelihood of an event occurring can be described numerically and used to make predictions.	How can you investigate chance processes and develop, use, and evaluate probability models?	Simulate Compound Events.	Students should be able to use multiplication to count outcomes and find probabilities.	Lesson 7-7 Simulate Compound Events SWBAT simulate a compound event to approximate its probability. enVision 2.0 Grade 7 Pgs. 397-402	Simulation	CC.2.4.7.B.3 Investigate the chance processes and develop, use, and evaluate probability models. M07.D-S.3.2.3 Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulations.

Review Common Assessment: Unit 7 Probability -1 Day

Test Common Assessment: Unit 7 Probability - 1 Day

Unit 8: Solving Problems Using Geometry

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
22 Days	Geometric relationships can be described, analyzed and classified based on special reasoning and/or visualization.	How can geometry be used to solve problems?	Scale Drawings	Students should be able solve problems involving scale drawings.	Lesson 8-1 Solve Problems Involving Scale Drawings SWBAT use the key in a scale drawing to find missing measures. enVision 2.0 Grade 7 Pgs. 415-420	Scale Drawings Scale Scale factor	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. CC.2.3.7.A.2 Visualize and represent geometric figures and describe the relationship between them. M07.C-G.1.1.1 Solve problems involving scale drawings of geometric figures, including finding length and area
	Geometric relationships can be described, analyzed and classified based on special reasoning and/or visualization.	How can geometry be used to solve problems?	Geometric Figures	Students should be able draw geometric figures	Lesson 8-2 Draw Geometric Figures SWBAT draw figures with given conditions. enVision 2.0 Grade 7 Pgs. 421-426		CC.2.3.7.A.1 Solve real world problems involving angle measure, area, surface area, circumference and volume. M07.C-G.2.1.1 Identify and use properties of supplementary, complementary, and adjacent angles in a multistep problem to write and solve simple equations for

Geometric relationships can be described, analyzed and classified based on special reasoning and/or visualization.		Students should be able draw geometric figures	Lesson 8-3 Draw Triangles with Given Conditions SWBAT draw triangles when given information about their side lengths and angle measures. enVision 2.0 Grade 7 Pgs. 427-434	an unknown angle in a figure. M07.C-G.2.1.2 Identify and use properties of angles formed when two parallel lines are cut by a transversal (e.g., angles may include alternate interior, alternate exterior, vertical, corresponding) M07.C-G.1.1.1 Solve problems involving scale drawings of geometric figures, including finding length and area CC.2.3.7.A.1 Solve real world problems involving angle measure, area, surface area, circumference and volume. M07.C-G.2.1.1 Identify and use properties of supplementary, complementary, and adjacent angles in a multistep problem to write ar solve simple equations for an unknown angle in a figure. M07.C-G.2.1.2 Identify and use properties of an unknown angle in a figure.
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Geometric relationships can be described, analyzed and classified based on special reasoning and/or visualization.	How can geometry be used to solve problems?	Properties of Angles and their Measure Circumference	Students should be able to classify angles and identify supplementary and complementary angles. Students should be able to use the relationships of complementary and supplementary angles to find missing measures.	Lesson 8-4 Solve Problems Using Angle Relationships SWBAT solve problems using angle relationships. enVision 2.0 Grade 7 Pgs. 435-440	Complementary angles Supplementary Angles	exterior, vertical, corresponding) M07.C-G.1.1.1 Solve problems involving scale drawings of geometric figures, including finding length and area CC.2.3.7.A.1 Solve real world problems involving angle measure, area, surface area, circumference and volume. M07.C-G.2.1.1 Identify and use properties of supplementary, complementary, and adjacent angles in a multistep problem to write and solve simple equations for an unknown angle in a figure. M07.C-G.2.1.2 Identify and use properties of angles formed when two parallel lines are cut by a transversal (e.g., angles may include alternate interior, alternate exterior, vertical, corresponding) CC.2.3.7.A.2 Visualize and
relationships can be described, analyzed and classified based	geometry be used to solve problems?	Circumerence	able to solve circumference problems for circles	Problems Involving Circumference of a Circle. SWBAT solve problems	Radius Diameter	represent geometric figures and describe the relationships between them.
on special reasoning				involving radius,		CC.2.3.7.A.1 Solve real world problems involvin

1	_		1	1	T	
and/or				diameter, and		angle measure, area,
visualization.				circumference of circles.		surface area,
						circumference and
				enVision 2.0		volume.
				Grade 7		
				Pgs. 441-446		M07.C-G.1.1.1 Solve
						problems involving scale
						drawings of geometric
						figures, including finding
						length and area
						length and area
						M07.C-G.2.2.1 Find the
						area and circumference of
						a circle. Solve problems
						involving area and
						circumference of a
						circle(s)
Geometric	How can	Circle Areas	Students should be	Lesson 8-6 Solve		CC.2.3.7.A.1 Solve real-
relationships	geometry be	Circle Areas	able to find the area	Problems Involving Area		worls and mathematical
can be	used to solve		of circles.	of a Circle.		problems involving angle
described,	problems?		of circles.	or a circle.		measure, area, surface
	problems:			CVA/DAT call to much lama		
analyzed and classified based				SWBAT solve problems		area, circumference, and
				involving radius,		volume.
on special				diameter, and		
reasoning				circumference of circles.		CC.2.3.7.A.2 Visualize and
and/or						represent geometric
visualization.				enVision 2.0		figures and describe the
				Grade 7		relationships between
				Pgs. 449-454		them.
						0000070000
						CC.2.2.7.B.3 Model and
						solve real-world and
						mathematical problems by
						using and connection
						numerical, algebraic,
						and/or graphical
						representations.
						M07.C-G.1.1.1 Solve
						problems involving scale
						drawing of geometric
						urawing or geometric

							figures, including finding
							length and area.
							M07.C-G.2.2.1 Find the area and circumference of a circle. Solve problems involving area and circumference of a circle(s)
							M07.C-G.2.2.2 Solve real world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. M07.B-E.2.2.1 Solve word problems leading to
							equations of the form px +
							q = r and p(x + q) = r where p, q, and r are specific rational numbers.
	Geometric relationships can be described, analyzed and classified based on special	How can geometry be used to solve problems?	Geometric Figures and their Properties	Students should be able to draw and analyze a cross section of a three dimensional figure.	Lesson 8-7 Describe Cross Sections SWBAT determine what the cross section looks like when a 3D figure is sliced.	Cross section	CC.2.3.7.A.2 Visualize and represent geometric figures and describe the relationships between them. M07.C-G.1.1.4 Describe
á	reasoning and/or visualization.				enVision 2.0 Grade 7 Pgs. 459-464		the two-dimensional figures that result from slicing three-dimensional figures.
							M07.C-G.2.2.2 Solve real world and mathematical problems involving area, volume, and surface area

						of two and three- dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
Geometric relationships can be described, analyzed and classified based on special reasoning and/or visualization.	How can geometry be used to solve problems?	Geometric figures and their measurements	Students should be able to find the volumes of prisms.	Lesson 8-8 Solve Problems Involving Surface Area SWBAT find the area and surface area of 2-dimensional composite shapes and 3-dimensional prisms. enVision 2.0 Grade 7 Pgs. 465-470	Volume	CC.2.3.7.A.1 Solve real-world and mathematical problems involving angle measure, area, surface area, circumference, and volume. M07.C-G.2.2.2 Solve real world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
Geometric relationships can be described, analyzed and classified based on special reasoning and/or visualization.	How can geometry be used to solve problems?	Geometric figures and their measurements	Students should be able to find the surface area of prisms.	Lesson 8-9 Solve Problems Involving Surface Area SWBAT use the area of the base of a three-dimensional figure to find its volume. enVision 2.0 Grade 7 Pgs. 471-476	Volume	CC.2.3.7.A.1 Solve real-world and mathematical problems involving angle measure, area, surface area, circumference, and volume. M07.C-G.2.2.2 Solve real world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Review Common Assessment: Unit 8 Geometry - 1 Day

Test Common Assessment: Unit 8 Geometry - 1 Day