

Number Sets – Single Numbers

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
<p>M03AT1.1.1a Round a two-digit number to the nearest ten</p>		<p>M05AT1.1.5a Round a decimal from the tenths place to the nearest whole number</p>				
<p>Intent: Demonstrate which tens place is closer when given a quantity greater than 10</p>		<p>Intent: Demonstrate which whole number is closer when given a quantity that has a decimal</p>				
	<p>M04AT1.1.1a Model relationships between adjacent digits in a multi-digit whole number</p>	<p>M05AT1.1.1a Identify place value in a 3-digit number using models</p>				
	<p>Intent: Use a model to show that in a number with two or more digits, the value in one place represents ten times what it represents in the place to its right</p>	<p>Intent: Show the hundreds, tens or ones place in a 3 digit value</p>				
<p>M03AT1.1.4a Order 3 numbers under 10</p>	<p>M04AT1.1.3a Compare to determine if a value is greater than, less than, or equal to another value</p>	<p>M05AT1.1.4a Compare two numbers up to the hundredths place</p>				
<p>Intent: Order most to least or least to most using small quantities</p>	<p>Intent: Compare two quantities determining which are the same, bigger or smaller</p>	<p>Intent: Determine which quantity is bigger or smaller in amounts that use a decimal</p>				

Number Sets – Single Numbers *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
			M06AN3.1.1a Identify a specific integer in a real-world context		M08BE1.1.2a Identify the meaning of an exponent (limited to exponents of 2 and 3)	
			Intent: Find whole numbers (positive or negative) used in real life situations		Intent: To show the relationship between multiplication and exponents	
	M04AF3.1.2a Identify equivalent values in decimal or fraction form (limited to denominator of 10)		M06AR1.1.2a Identify the ratio that matches a given statement and/or representation			
	Intent: Show how one quantity can be represented in different forms using denominators of 10		Intent: Compare two quantities to describe a given situation			

Fractions – Single Numbers

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03CG1.1.3a Partition a rectangle into parts with equal areas						
Intent: Separate a rectangle into at least two equal parts						
M03AF1.1.1a Identify the unit fraction or other proper fraction (denominators = 2, 3, 4, 6) that matches the representation	M04AF.2.1.2a Decompose a proper fraction into multiple copies of a unit fraction (denominators limited to 3, 4, or 8)					
Intent: Recognize the representation of a given fractional amount (denominators 2,3,4,6)	Intent: Break a fraction into smaller pieces (denominators limited to 3,4, or 8)					
M03AF1.1.3b Identify equivalent fractions using representations	M04AF1.1.1a Identify equivalent fractions					
Intent: Recognize the same fraction amount (equal amounts) using representations	Intent: Recognize when different fractions are the same					

Fractions – Single Numbers *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
	M04AF1.1.2a Compare two fractions with like denominators					
	Intent: Compare two fractions with the same denominator					
	M04AF.2.1.1a Add or subtract fractions with common denominators (denominators limited to 2, 3, 4, or 8)		M06AR1.1.5a Calculate a percent of a quantity as a rate per 100		M08AN1.1.2a Convert a fraction to a decimal up to the hundredths place	CC.2.1.HSF2a Convert between fractions and decimals in a real-world problem
	Intent: Put together or take apart fractions with the same denominator 2,3,4 or 8		Intent: Recognize a percent as a portion out of 100		Intent: Recognize the connection between a fraction and a decimal to the hundredths place	Intent: Recognize the connection between fractions and decimals in a real-world situation
			M06AR1.1.4a Solve a 1-step real-world problem given the unit rate	M07AR1.1.1a Find the unit rate in a real-world problem		
			Intent: Use unit rates (such as price per pound) to find the answer to a real-world problem	Intent: Figure out the unit rate (such as price per pound) to find the answer to a problem		

Operations with 2 Numbers

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03AT1.1.2a Demonstrate understanding of addition with small sets	M04AT2.1.1a Add or subtract whole numbers with sums and differences <1000	M05AT2.1.3a Add or subtract decimals to the tenths place	M06AN2.1.1a Solve a problem using up to 3- digit whole numbers and any of the four operations	M07AN1.1.1a Solve a 1-step addition or subtraction problem with fractions, decimals, or positive/negative integers	<p>This is intentionally left blank because the grade level standards no longer focus on performing operation on only two digits for the purpose of understanding the operation.</p> <p>Operations are applied through the use of expression, equations, functions, data, and other grade level content.</p>	
Intent: Understand the meaning of addition (put together)	Intent: Add or subtract whole numbers/quantities	Intent: Add or subtract decimals/quantities	Intent: Add, subtract, multiply, or divide whole numbers/quantities	Intent: Add or subtract problems with fractions, decimals, or integers/quantities		
M03AT1.1.2b Demonstrate understanding subtraction with small sets						
Intent: Understand the meaning of subtraction (take apart)						
	M04AT2.1.4a Assess the plausibility of results from addition or subtraction			1M07BE2.3.1a Identify a reasonable solution in the context of a problem using the four basic operations and numbers under 20		
	Intent: Determine if answer to addition or subtraction problem is reasonable			Intent: Determine if answer to addition, subtraction, multiplication or division problem is a reasonable answer		

Operations with 2 Numbers *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03BO1.1.1a Use a model in a multiplication situation	M04AT2.1.2a Demonstrate understanding of multiplication or division with small sets	M05AT2.1.1a Multiply single- digit whole numbers		M07AN1.1.3a Solve a multiplication or division problem with positive/negative rational numbers	<p>This is intentionally left blank because the grade level standards no longer focus on performing operation on only two digits for the purpose of understanding the operation. Operations are applied through the use of expression, equations, functions, data, and other grade level content.</p>	
Intent: Use given representation to demonstrate multiplication	Intent: Demonstrate concept of multiplication or division by modeling with small sets	Intent: Multiply whole numbers less than 10 with or without a model		Intent: Multiply or divide whole numbers, fractions, decimals, or integers		
		M05.AF.2.1.2.a Multiply a fraction by a whole number less than 10				
		Intent: Demonstrate a fractional amount multiplied by a whole number less than 10				

Application of Operations with 2 Numbers

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03BO3.1.1a Solve a 1-step real-world problem involving numbers under 10 using addition or subtraction	M04BO1.1.3a Solve a real- world problem with one or more steps using addition or subtraction	M05AF1.1.1a Add or subtract proper fractions with common denominators to solve a real- world problem			This is intentionally left blank because the grade level standards no longer focus on performing operation on only two digits for the purpose of understanding the operation. Operations are applied through the use of expression, equations, functions, data, and other grade level content.	
Intent: Find the answer to a real-world problem by either putting together or taking apart small quantities	Intent: Find the answer to a real- world problem by adding or subtracting whole numbers/quantities	Intent: Find the answer to a real- world problem by adding or subtracting fractional quantities				
	M04BO1.1.2a Use a model to solve a real- world multiplication problem			M07AR1.1.6a Use percentages to solve a real- world problem		
	Intent: Solve a real-world problem represented by a multiplication model			Intent: Solve a real-world problem using percentages		
		M05AT2.1.2a Illustrate the concept of division using fair and equal shares				
		Intent: Demonstrate division using a model that focuses on equal shares				

Building Data Displays

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03DM2.1.1a Add information to a pictograph, line plot, or bar graph	M04DM2.1.1a Organize data into a pictograph, line plot, or bar graph					CC.2.2.HSC1a Determine the missing coordinates in a table of values containing at least 2 complete ordered pairs
Intent: Build graphs by adding one or more pieces of information	Intent: Build graphs by adding information to a graph					Intent: Complete a table that shows the relationship between two characteristics (e.g., height/weight, weather/heating costs)
		M05CG1.1.1a Identify an ordered pair (x,y) in quadrant I	M06AN3.2.3a Identify points in all four quadrants of the coordinate plane	M07AR1.1.3a Represent a proportional relationship on a line graph	M08BE3.1.5a Graph a linear equation	
		Intent: Find/label/show, a point on a graph that shows the specific relationship between two characteristics (both positive values)	Intent: Find/label/show, a point on a graph that shows the specific relationship between two characteristics (positive/positive, negative/negative, positive/negative, negative/positive)	Intent: Use a graph to show a relationship between characteristics (example- for every hour worked you earn \$1)	Intent: Use a graph to show the relationship between two characteristics that are directly related in an equation	

Building Data Displays *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
		M05CG1.1.2a Graph an ordered pair (x, y) in quadrant I			M08BE2.1.3a Identify the slope and y- intercept of a line on a graph characteristics and the y intercept (place where the line crosses the vertical axis)	
		Intent: Plot values representing one point that shows two characteristics (both positive values) (i.e. height/weight)			Intent: Identify the slope (direction of the line and/or the relationship) between two characteristics and the y intercept (placed where the line crosses the vertical axis)	
			M06AN3.1.3a Locate positive and negative numbers on the number line	M07AN1.1.2a Identify the difference between two numbers on the number line	M08AN1.1.5a Locate a non-terminating decimal at its approximate location on the number line	
			Intent: Use a number line and find specific positive and negative whole numbers	Intent: To identify the distance between two numbers/quantities on a number line	Intent: Use estimation to find values on the number line	
			M06AN3.1.2a Identify the opposite of a number on the number line			
			Intent: Use a number line to find a number/quantity that is the mirror image of another number/quantity (e.g., +3, -3)			

Using Data Displays

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
	M04DM2.1.2a Answer a question about data in a pictograph, line plot, or bar graph	M05DM2.1.2a Interpret one set of data given in 2 different displays	M06DS1.1.3a Compare points in a line plot, histogram, or on a number line	M07DS2.1.1a Compare two sets of data within a single pictograph, line plot, or bar graph	M08BE2.1.1a Compare two proportional relationships shown in graph form	
	Intent: Use a graph to answer a question	Intent: Show how two different graphs can show the same information	Intent: Identify what is the same or different about two points on a graph	Intent: Identify what is the same or different about two different sets of data	Intent: Recognize what is the same and/or different about two relationships on a graph	
				M07AR1.1.5a Interpret an ordered pair in a real-world problem	M08BF2.1.1a Determine the missing value in a graph showing a real-world linear relationship	CC.2.2.HSC5b Interpret a graphical representation of a linear model in a real-world problem
				Intent: Identify the meaning of a specific point representing two characteristics in a real-world situation (e.g., cost per pound)	Intent: Identify a missing point on a display representing two characteristics in a real-world situation. (e.g., you know total cost is \$10 and each pound is \$5, use the graph to find the number of pounds)	Intent: Use linear graphs to better understand a real-world situation
					M08BF2.1.2a Describe the relationship between two variables with a linear relationship displayed in graph form	CC.2.2.HSC3a Describe the linear relationship between two variables displayed in a table of values
					Intent: Using a graph to see the pattern between two sets of numbers/quantities	Intent: Using a table, see the pattern between two sets of numbers/quantities

Using Data Displays *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
					M08DS1.1.2a Identify a statement that describes the relationship between variables displayed in a scatterplot	
					Intent: Find the description that best shows the connection between two characteristics shown in a scatterplot (specific points have a general relationship)	
					M08DS1.2.1a Answer a question using data from a two-way table	CC.2.4.HSB5a Draw a conclusion about data presented in a two-way table representing a real-world problem
					Intent: Use summary data combining two characteristics to answer question	Intent: Use summary data combining two characteristics to make decisions about a real-world problem

Number Patterns

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03BO3.1.5a Identify a mathematical pattern in a real- world problem				This is intentionally left blank because the grade level standards shift from numerical patterns to expressions, equations, and functions.		
Intent: Recognize the rule in a pattern of numbers/quantities that follows a rule in a real-world situation.						
M03BO3.1.5b Identify the 3 next terms in a mathematical pattern (increasing by 2, 5 or 10)	M04BO3.1.1a Extend a pattern when shown a model and told the rule	M05BO2.1.1a Identify and extend numeric patterns	M06AN2.2.1a Identify multiples for numbers 5,10, 25, or 100			
Intent: Use a pattern to extend a sequence of numbers/quantities by 2, 5 or 10	Intent: Use a pattern to extend a sequence of numbers/ quantities given a rule and an example showing the rule	Intent: Find and use a pattern to extend a sequence of numbers/quantities	Intent: Use multiplication or skip counting to identify numbers/quantities that increase by 5,10,25 or 100			
		M05BO2.1.1b Generate a pattern that follows 1 or more rules provided				
		Intent: Create a sequence of numbers/quantities that follow one or more rules				

Number Patterns *Continued...*

Grade 3	Grade 4	Grade 4	Grade 6	Grade 7	Grade 8	Grade 11
	<p>M04BO2.1.1a Identify the multiples of 5 to 100 and 10 to 100 (e.g., count money)</p>	<p>M05AT1.1.2a Identify a pattern and change in place value when a number up to 99 is multiplied by powers of 10</p>		<p>This is intentionally left blank because the grade level standards shift from numerical patterns to expressions, equations, and functions.</p>		
	<p>Intent: Use multiplication or skip counting to identify numbers/quantities that increase by 5 or 10, up to 100</p>	<p>Intent: Show the effect on a sequence of numbers/quantities when multiplying by ten. (e.g., 9 x 10 changes the place value from ones place to tens place- 9 to 90)</p>				

Expressions, Equations, and Functions

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
<p>This is intentionally left blank because the grade level standards establish these early concepts/procedures through the idea of numerical patterns.</p>						CC.2.2.HSD7a Translate a real-world problem into a one- variable equation
						Intent: Take a real-world situation and represent it as an equation using numbers/quantities
			M06BE2.1.2a Select an algebraic expression involving addition or subtraction of whole numbers to solve a 1-step real-world problem	M07BE2.2.1a Select an algebraic expression (equations or inequalities) using addition or subtraction of fractions, decimals, or positive/negative integers to solve a 1-step real- world problem	M08BE3.1.1a Select an algebraic equation using addition or subtraction to solve a 2-step real-world problem with one variable	CC.2.2.HSD1a Select an algebraic expression using any of the four operations and solve a real-world problem
			Intent: Match an addition or subtraction expression with whole numbers/quantities that would solve a real-world problem	Intent: Match an addition or subtraction expression with any kinds of real numbers/quantities that would solve a real-world problem	Intent: Match an addition or subtraction expression with any kinds of real numbers/quantities that would solve a 2- step real-world problem	Intent: Match an addition, subtraction, multiplication or division expression with any kinds of real numbers/quantities and solve a real-world problem

Expressions, Equations, and Functions *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
<p>This is intentionally left blank because the grade level standards establish these early concepts/procedures through the idea of numerical patterns.</p>			<p>M06BE2.1.3a Use a 1-step algebraic expression to solve a real- world problem involving addition or subtraction of whole numbers</p>		<p>M08BE3.1.2a Solve a 2-step real-world problem using an algebraic equation involving addition or subtraction and one variable</p>	<p>CC.2.2.HSD8a Solve a linear equation to find a missing attribute when determining area or volume</p>
			<p>Intent: Given an addition or subtraction expression with whole numbers/quantities, solve a real-world problem</p>		<p>Intent: Given an addition or subtraction expression with any kinds of real numbers/quantities solve a 2- step real world problem</p>	<p>Intent: Use an equation for area or volume with numbers/quantities to determine a missing part. (e.g., given a length and an area find height)</p>
						<p>CC.2.2.HSD9a Order a given sequence of steps to solve an equation</p>
						<p>Intent: Put two or more steps in the correct order to solve an equation with numbers/quantities</p>
			<p>M06BE3.1.1a Identify the relationship between two variables in an equation</p>			<p>CC.2.4.HSB3a Identify the relationship between two or more variables in a function</p>
			<p>Intent: Determine the connection between two characteristics represented as an equation</p>			<p>Intent: Identify operation (addition, subtraction, multiplication or division) that connects two sets of numbers/quantities Examples (Function...add 2, multiple 3, etc.)</p>

Expressions, Equations, and Functions *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
<p>This is intentionally left blank because the grade level standards establish these early concepts/procedures through the idea of numerical patterns.</p>						<p>CC.2.2.HSC5a Interpret the effect of a change in one variable on the other variable using graphs or tables</p>
						<p>Intent: Using a visual/tactile representation (graph or table) identify the impact of a change in one characteristic on the second characteristic</p>

Geometric Figures

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
<p>M03CG1.1.1a Identify similarities between two polygons</p>	<p>M04CG1.1.2a Classify two-dimensional shapes based on attributes</p>	<p>M05CG2.1.1a Identify a two-dimensional figure with specific attributes</p>	<p>M06CG1.1.5a Classify three-dimensional figures</p>	<p>M07CG1.1.4a Identify a three-dimensional figure with specific attributes</p>	<p>M08CG1.1.1a Identify a rotation, reflection, or translation of a two- or three-dimensional figure</p>	<p>CC.2.3.HSA13a Match corresponding two-dimensional and three-dimensional representations</p>
<p>Intent: Compare two 2-D shapes with straight line edges and angles e.g., triangle, square, diamond</p>	<p>Intent: Arrange 2-D shapes into groups with common features</p>	<p>Intent: Select a 2-D shape when given one or more specific features</p>	<p>Intent: Arrange 3-D shapes into groups with common features (e.g., cubes vs. spheres)</p>	<p>Intent: Select a 3-D shape when given one or more specific features</p>	<p>Intent: Determine if a 2-D or 3-D shape has been turned, flipped over or slid</p>	<p>Intent: Show how 2-D shapes build or fit within 3-D shapes</p>
	<p>M04CG1.1.3a Recognize a line of symmetry in a two-dimensional figure</p>					
	<p>Intent: Identify a line that divides a 2-D shape into two parts with the same size and shape</p>					
<p>M03DM3.1.2a Measure the area of a rectangle by counting squares, tiling, or addition</p>	<p>M04DM1.1.3a Identify the area or perimeter of a rectangle</p>	<p>M05DM3.1.2a Find volume by using filling or multiplication</p>	<p>M06CG1.1.3a Solve a real-world problem involving volume using unit cubes or multiplication</p>	<p>M07CG2.2.2a Find the area or volume of a two- or three-dimensional object given the formula</p>	<p>M08CG.3.1.1a Complete the formula for volume to solve a real-world or mathematical problem</p>	<p>CC.2.3.HSA14a Compare the area of two objects with one equivalent attribute</p>
<p>Intent: Use squares, tiles or addition to show the total units that cover a rectangle</p>	<p>Intent: Show the area (i.e., what covers the inside) of a rectangle or the perimeter (i.e., the distance around the outside) a rectangle</p>	<p>Intent: Find the volume by filling the figure with cubes or using a formula</p>	<p>Intent: Find the volume by filling the figure with cubes or using a formula to solve a real-world problem</p>	<p>Intent: Use formulas involving numbers/quantities of 2 or 3-D objects with straight line edges and angles (e.g., rectangle, cube) to determine area or volume</p>	<p>Intent: Use formulas involving numbers/quantities of 2 or 3-D objects with straight line edges and angles (e.g., rectangle, cube) to determine area or volume in a real-world problem</p>	<p>Intent: Determine the larger or smaller area of two shapes that have one feature that is identical</p>

Geometric Figures *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10
M03DM4.1.1a Find the perimeter of a rectangle			M06CG1.1.1a Find the area of a quadrilateral given the dimensions			
Intent: Determine the distance around the outside of a rectangle			Intent: Find the area of a 4-sided shape given the length and width			
				M07CG1.1.2a Identify the properties of a right triangle	M08CG2.1.2a Apply the Pythagorean theorem to determine length/distance in a real-world problem	
				Intent: Identify a characteristic of a right triangle (e.g., the longest side, the right angle or the two short sides)	Intent: Use the relationship between the three sides of a right triangle to solve a real-world problem	
				M07CG2.1.1a Use angle relationships to find the missing angle	M08CG1.1.2a Identify figures that are congruent/similar	
				Intent: Use information about angles to form a straight line	Intent: Find shapes that are same size and shape (congruent) or same shape and different sizes(similar)	

Measurement

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03DM1.1.1a Tell time to the hour or half hour on a clock						
Intent: Identify a time on an analog or digital representation clock						
M03DM1.2.1a Identify and use the appropriate measurement tool based on the situation	M04DM1.1.1a Identify the appropriate unit of measurement in a real-world problem	M05DM1.1.1a Use a conversion table to identify equivalent standard measurements of length or mass		M07CG1.1.1a Solve a 1-step real-world problem related to scaling		CC.2.1.HSF3a Identify and interpret scale in a real-world problem
Intent: Select and use measurement tools (e.g., ruler, measuring cup) to complete a task	Intent: Select the most efficient measurement unit needed in a real world problem (e.g., teaspoon vs gallon)	Intent: Using a table, convert one unit of measurement to another (e.g., inches to feet)		Intent: Use a model reduced in scale (size) to solve a real world problem (e.g., use model of room to figure out arrangement of furniture)		Intent: Recognize a model, in a familiar real-world problem, reduced or increased in scale and identify the impact of the scale (e.g., bigger or smaller)
M03DM1.2.3a Use a ruler and measure to the nearest inch (exact measurement)						
Intent: Use a ruler to measure a figure that is a precise number of inches (e.g., measuring the length of a 3X5 card)						

Measurement *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
M03DM1.3.1a Count money using coins or one-dollar bills						
Intent: Recognize the value of different coins or one dollar bills when counting						
						CC.2.1.HSF4a Determine the necessary units and solve a real- world problem
						Intent: Given a real-world problem, identify the unit of measurement that is most appropriate (e.g., driving 500 miles, what unit of time makes sense to determine how long to get there) and solve the problem
			M06DS1.1.2a Identify measures of central tendency (mean, median, mode)	M07DS2.1.1b Use measures of central tendency to interpret data, including overall patterns in the data		CC.2.4.HSB2a Interpret the means and/or medians of two sets of data
			Intent: Select the average, the middle value/quantity or the most frequently occurring value in a set of data	Intent: Demonstrate meaning of the average, the middle value/quantity or the most frequently occurring value in a set of data		Intent: Compare the averages or middle values/quantities for two groups

Measurement *Continued...*

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
				<p>M07DS3.1.1a Identify the probability of events occurring as possible/impossible or likely/unlikely</p>		<p>CC.2.4.HSB7a Identify the probability of events based on real-world examples of conditional probability</p>
				<p>Intent: Describe events that are possible or not possible or the chances that something will happen</p>		<p>Intent: Describe/find the chances that one event will happen given that a second event occurred</p>