

XP Math - Common Core State Standards Alignment Guide

Whole Numbers Math Games

!NEW! Math Slot Machine: Multiplication Drills	3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.
Math Squares - Addition & Multiplication	3.OA.4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
Multiply by 11 Trick	4.OA.1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
Need for Speed - Addition: 0 to 9	2.OA.2. Fluently add and subtract within 20 using mental strategies.
Need for Speed - Subtraction: 0 to 9	2.OA.2. Fluently add and subtract within 20 using mental strategies.
Wheel of Fortune - Numbers and Computation Edition	Operations & Algebraic Thinking, Number & Operations in Base Ten
Whole Numbers Addition Blocks	2.OA.2. Fluently add and subtract within 20 using mental strategies.
Whole Numbers Addition: 0 to 9	2.OA.2. Fluently add and subtract within 20 using mental strategies.
Whole Numbers Addition: 0 to 99	4.NBT.4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
Whole Numbers Division: 0 to 81	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Division: 0 to 99	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Multiplication Blocks	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Multiplication Boxes	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Multiplication: 0 to 144	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Multiplication: 0 to 9	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Multiplication: 0 to 99	3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations.
Whole Numbers Subtraction: 0 to 9	2.OA.2. Fluently add and subtract within 20 using mental strategies.
Whole Numbers Subtraction: 0 to 99	4.NBT.4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Order of Operations Math Games

Call of Hierarchy: Black Order of Operations	5.OA.1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
Order of Operations	5.OA.1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. 6.EE.1. Write and evaluate numerical expressions involving whole-number exponents.

Fractions, Decimals, Percents Math Games

Chopper - Fractions & Decimals Edition	4.NF.5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.
Comparing Fractions	4.NF.6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram. 4.NF.2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

 Converting Decimals to Percents: 0 to 1	7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
 Converting Decimals to Percents: 0 to 2	7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
 Converting Improper Fractions to Mixed Numbers	5.NF.6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
 Converting Mixed Numbers to Improper Fractions	5.NF.3. Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?
 Converting Percents to Decimals: 0% to 100%	7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
 Converting Percents to Decimals: 0% to 200%	7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
 Decimals Addition: 0.0 to 9.0	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Decimals Division: By Tenths	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Decimals Multiplication: By Tenths	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Decimals Subtraction: 0.0 to 9.0	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 !NEW! Fraction Vault Multiplier: Equivalent Fraction Models	4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. FOR ENTERTAINMENT PURPOSES ONLY. NO PRIZES AWARDED.
 Fractions Addition: Fractions with Common Denominators	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Fractions Division	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Fractions Multiplication	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Fractions Subtraction: Fractions with Common Denominators	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Percent Circle	6.RP.3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
 Wheel of Fortune - Fractions, Decimals & Percents Edition	Ratios & Proportional Relationships, The Number System

Integers Math Games

 Absolute Value Boxes	6.NS.7. Understand ordering and absolute value of rational numbers.
 Comparing Integers	6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
 Integer Driving Test - Integer Addition & Subtraction	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Integers Addition Blocks	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line

	diagram.
 Integers Addition: -9 to +9	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Integers Addition: -99 to +99	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Integers Division: -81 to 81	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Integers Multiplication Blocks	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Integers Multiplication: -144 to 144	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Integers Multiplication: -9 to +9	7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Integers Subtraction: -9 to +9	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Integers Subtraction: -99 to 99	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 Math Fighter: Integer Operations	7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. 7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 Space Race - Comparing Integers	6.NS.6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

Other Math Games

 Baseball Exponents	8.EE.1. Know and apply the properties of integer exponents to generate equivalent numerical expressions.
 Coins Mystery	5.MD.1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
 King Kong's Prime Numbers	6.NS.4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$. Apply and extend previous understandings of numbers to the system of rational numbers.
 !NEW! Kung Fu Factor - Prime Factorization	4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
 Number Catch - Multiples of 2	4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
 Primes Vs. Composites: Divisibility Rules	6.NS.4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor.
 Square Root Cannon	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. Press and Hold UP and DOWN to rotate cannon Press and Hold LEFT and RIGHT to aim missile while it's in the air

Algebra Math Games

 Circle Addition Equation	6.EE.5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. 6.EE.6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
 F>Zero Graphing Inequalities	6.EE.5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

 Factorizing Trinomials	A-SSE.3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
 !NEW! Functions Rates of Change: Odd One Out	8.F.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>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.</i>
 Halo: Slope	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. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.
 Inequality Wars	7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
 Like Terms Invaders	6.EE.3. Apply the properties of operations to generate equivalent expressions.
 Math Payne: The Function of Math Payne	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.
 One Step Equations Pong	6.EE.5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
 Solving Addition Equations	6.EE.7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
 Solving Division Equations	6.EE.7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
 Solving Multiplication Equations	6.EE.7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
 Solving Proportions	6.RP.3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
 Solving Subtraction Equations	6.EE.7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
 Solving Two-Step Equations	7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.

Geometry Math Games

 Call of Geometry: Quadrilateral Warfare	5.G.3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles. 5.G.4. Classify two-dimensional figures in a hierarchy based on properties.
 Finding Areas of Parallelograms	6.G.1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
 Finding Perimeters of Parallelograms	3.MD.8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
 Geometric Shapes Avider - Triangle, Square, Pentagon	5.G.4. Classify two-dimensional figures in a hierarchy based on properties.
 Homer's Donuts Coordinates	6.NS.6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
 Metroid Coordinates	6.NS.6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
 !NEW! Portal Transformation	8.G.A.1 Verify experimentally the properties of rotations, reflections, and translations
 Soccer Coordinates	6.NS.6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
 Wheel of Fortune - Geometry Edition	Geometry

Measurement Math Games

 Complementary and Supplementary Angle Pairs Memory Match	7.G.5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
 Complementary and Supplementary Angle Pairs Practice	7.G.5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

 Converting Large Numbers into Scientific Notation	8.EE.4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
 Converting Small Numbers into Scientific Notation	8.EE.4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
 Flip Card - Angle Types	4.MD.5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: *An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1/360$ of a circle is called a "one-degree angle," and can be used to measure angles. *An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
 Helicopter Shootdown - Tank Angle Measurement	4.MD.6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
 !NEW! Minecraft Volume: Rectangular Prism	5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. "Minecraft" is a trademark of Notch Development AB
 UFO Attack - Space Angle Measurement	4.MD.6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Probability Math Games

 Deal or No Deal	7.SP.5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $1/2$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
 Guess the Number -1,000 to 1,000	6.SP.2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
 Guess the Number 0 to 100	6.SP.2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. 7.SP.6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.
 Math Effect Two Dice Sum Probability	7.SP.7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.
 Number Sets Roulette	6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values 6.NS.6. Understand a rational number as a point on the number line. 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. 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
 Plinko Probability - The Probability is Right	7.SP.5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $1/2$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
 Probability - Starfish	7.SP.5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $1/2$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. 6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
 Roll Back Number Line	7.SP.6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. 7.SP.7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

All times are GMT -4. The time now is 04:14 PM.