

# Math Common Core

# Grade 4

Number	Standard	Description
1	OA.A1	Interpret “x”: $35 = 5 \times 7$ as 35 is 5 times as many as 7 and 7 times as many as 5. Use equations
2	OA.A2	Solve word problems up to 1,000,000 with symbol to represent unknown, matching equation
3	OA.A3	Solve multi step word problems (including problems where remainders have to be interpreted) with symbol to represent unknown and matching equation. Assess reasonableness using estimation
4	OA.B4	Find all the factor pairs for whole numbers 1 – 100. Recognize a whole number as a multiple of each of its factors. Determine whether a number is prime or composite.
5	OA.C5	Generate a number or shape pattern to follow a rule (ex: “Add 3 and start at 1, generate terms and observe alternation between even and odd) explain why pattern has effect
6	NBT.A1	Recognize that a digit in one place represents 10 times what is in the place to its right ( $700/70 = 10$ )
7	NBT.A2	Read, write, compare, expand multi-digit whole numbers (using $<$ , $>$ , $=$ and expanded form)
8	NBT.A3	Use place value to round multi-digit numbers to any place up to 1,000,000
9	NBT.B4	Fluently add and subtract multi-digit whole numbers up to 1,000,000
10	NBT.B5	Multiply a whole # of up to 4 digits by a 1 digit whole #, multiply two two-digit #s Explain with equations, rectangular arrays, or area models
11	NBT.B6	Find quotients and remainders with up to four-digit dividends and one-digit divisors, illustrate and explain using equations, rectangular arrays, or area models
12	NF.A1	Explain, recognize, and generate equivalent fractions with visual models, labels and words
13	NF.A2a	Compare 2 fractions with different numerators and denominators (by creating common numerators and denominators, or by comparing them to a benchmark fraction like $\frac{1}{2}$ ) using $<$ , $>$ , $=$ . Recognize that comparisons are valid only when the 2 fractions refer to the same whole
14	NF.B3a	understand adding and subtracting fractions (explain separating and joining parts of same whole)
15	NF.B3b	Decompose a fraction into a sum of fractions ( $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$ ) represent with equation and/or visual fraction model
16	NF.B3c	Add and subtract mixed numbers with like denominators
17	NF.B3d	solve word problems involving addition and subtraction of fractions with like denominators
18	NF.B4a	Understand ex: $\frac{5}{4}$ as a product of $5 \times \frac{1}{4}$ . Create an equation to match
19	NF.B4b	Understand ex: $3 \times \frac{2}{5}$ as $6 \times \frac{1}{5}$ all equals $\frac{6}{5} \rightarrow n \times (\frac{a}{b}) = (\frac{n \times a}{b})$
20	NF.B4c	Solve word problems involving multiplication of a fraction by a whole number
21	NF.C5	Express a fraction with denominator 10 as an equivalent fraction with denominator 100 ex: $\frac{3}{10} = \frac{30}{100}$ and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$
22	NF.C6	Use decimals for fractions with denominators 10 or 100 ex: $.62 = \frac{62}{100}$ , locate on a number line
23	NF.C7	Compare decimals to the hundredth using $<$ , $>$ , $=$ and justify (words, and/or visual model) Recognize that comparisons are valid only when the 2 decimals refer to the same whole
24	MD.A1	Know sizes of measurement units (km, m, cm, kg, g, lb, oz, l, ml, hr, min, sec) can compare within system of measure, generate a conversion table
25	MD.A2	Use 4 operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money (Including fractions and decimals) and including measurements given in a larger unit in terms of a smaller unit
26	MD. A3	apply area and perimeter formulas for rectangles in real world mathematical problems
27	MD.B4	Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ , $\frac{1}{4}$ , etc) solve problems involving + and – fractions using information from a line plot
28	MD.C5a	Recognize angles, measured with reference to a circle, considering the fraction of a circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is a one-degree-angle and can be used to measure angles
29	MD.C5b	An angle that turns through $n$ one-degree angles has a measure of $n$ degrees
30	MD.C6	Measure and sketch angles in whole number degrees using a protractor.
31	MD.C7	Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the part. Solve addition and subtraction problems to find unknown angles on a diagram
32	G.A1	Draw and ID in 2-D shapes: points, lines, line segment, rays, angles (right, acute, obtuse), perpendicular and parallel lines.
33	G.A2	Classify 2-D shapes based on lines, angles. ID right triangle
34	G.A3	Recognize and draw lines of symmetry for 2-D shapes (as folded along line into matching parts)
*****	NF.FN	Fractions in 4 <sup>th</sup> have denominators 2, 3, 4, 5, 6, 8, 10, 12, 100

