

GRADE 3

Operations & Algebraic Thinking

- 3.OA.A.1** Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.
- 3.OA.A.2** Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
- 3.OA.A.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, unknowns, and comparisons; e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- 3.OA.A.4** Understand the relationship between multiplication and division; e.g., recognize that $6 \times 4 = 24$ is equivalent to $24 \div 6 = 4$.
- 3.OA.A.5** Apply properties of operations as strategies to multiply and divide.
- 3.OA.A.6** Understand division as an unknown-factor problem.
- 3.OA.A.7** Fluently multiply and divide within 100, using strategies based on the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, calculate $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- 3.OA.B.1** Understand why "invert-and-multiply" works for dividing a whole number into a whole number quotient. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- 3.OA.C.8** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

Number & Operations in Base 10

- 3.NBT.A.1** Use place value understanding to read whole numbers to the hundred (100).
- 3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and the relationship between addition and subtraction.
- 3.NBT.A.3** Multiply one-digit whole numbers by multiples of 10 in the range 10–100 (e.g., 9×10 , 7×100) using strategies based on place value and properties of operations.

Measurement & Data

- 3.MD.A.1** Tell and estimate how long an object takes to complete a cycle of a repeating event. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., for representing the problem as a number line diagram.
- 3.MD.A.2** Measure and estimate length in various units of length (e.g., milligrams, grams, kilograms), and solve word problems involving addition, subtraction, and multiplication of length in various units. Use appropriate units, e.g., for measuring the length of a pencil or the distance between two cities, use appropriate units—whole numbers, halves, or quarters.
- 3.MD.A.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.
- 3.MD.A.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal axis is marked with appropriate units—whole numbers, halves, or quarters.
- 3.MD.A.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.
- 3.MD.A.6** Measure area by counting unit squares (square centimeters, square inches, square feet, and improvised units).
- 3.MD.A.7** Estimate area to the operations of multiplication and addition.
- 3.MD.B.1** Draw real-world objects in two dimensions. Recognize that shapes in different orientations and positions are the same shape and understand how to use geometry to describe shapes in different orientations and positions.

Number & Operations – Fractions

- 3.NF.A.1** Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
- 3.NF.A.2** Compare two fractions with a numerator and denominator less than 10, represent fractions on a number line diagram.
- 3.NF.A.3** Explain equivalence of fractions, special cases, and compare fractions by reasoning about their size.

Geometry

- 3.G.1** Understand that shapes in different orientations (e.g., rectangles, rhombuses, and trapezoids) have their attributes (e.g., having four sides), and that the shared attributes can define a large category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
- 3.G.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

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