

Vocabulary for Unit 3:

Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10

- Array: a set of numbers or objects that follow a specific pattern, a matrix
- Column: a vertical arrangement of objects in an array
- Commutative Property: a mathematical property using addition or multiplication where “ $a + b = b + a$ ” or “ $a \times b = b \times a$ ”; e.g., rotate a rectangular array 90 degrees to demonstrate that factors in a multiplication sentence can switch places; $2 + 3 = 3 + 2$; $2 \times 3 = 3 \times 2$
- Distribute: with reference to the Distributive Property; e.g., in $12 \times 3 = (10 \times 3) + (2 \times 3)$ the 3 is multiplier for each part of the decomposition
- Divide/Division: partitioning a total number of objects into a given number of groups to find the number of objects in each group; using the number of objects in each group to measure the total number of objects in finding the total number of groups
- Equal groups: with reference to multiplication and division; one factor is the number of objects in a group and the other is a multiplier that indicates the number of groups
- Equation: a statement that two expressions are equal; e.g., $3 \times 4 = 12$ or $4 \times 6 = 3 \times 8$
- Even number: a whole number whose last digit is 0, 2, 4, 6, or 8
- Expression: a number, or combination of sums, differences, products, or divisions of numbers that evaluates to a number; e.g., 8×3 ; $15 \div 3$
- Factors: numbers that are multiplied to obtain a product
- Multiple: a number that is the product of a given number and another number
- Multiplication/multiply: an operation showing how many times a number is added to itself; e.g., $5 \times 3 = 15$

- Number bond: factor in a multiplication problem that refers to the total equal groups; model used to show part-part-whole relationships
- Number sentence: similar to an equation, but not necessarily having equal sides; e.g., $21 > 7 \times 2$, $5 \div 5 = 1$
- Odd number: a whole number whose last digit is 1, 3, 5, 7, or 9
- Parentheses: the symbols, (), used around a fact or numbers within an equation
- Product: the quantity resulting from multiplying two or more numbers together
- Quotient: the answer when one number is divided by another
- Row: a horizontal arrangement of objects in an array
- Tape diagram: a method for modeling problems: a drawing that looks like a segment of tape, used to illustrate number relationships; also known as a strip diagram, bar model, fraction strip, or length model
- Unit: one segment of a partitioned tape diagram
- Unknown: the “missing” factor or quantity in multiplication or division
- Value: how much