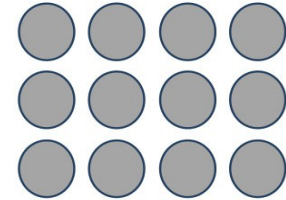


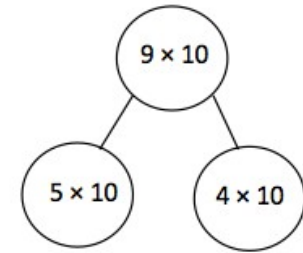
# Third Grade Vocabulary for Module 1: Properties of Multiplication and Division



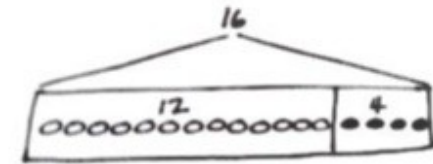
Array

- Add 1 unit, subtract 1 unit (add or subtract a single unit of two, ten, etc.)
- Array (a set of numbers or objects that follow a specific pattern, a matrix. See right.)
- Column (e.g., in an array)
- Commutative Property/Commutative (e.g., rotate a rectangular array 90 degrees to demonstrate that factors in a multiplication sentence can switch places)
- 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 2 expressions are equal; e.g.,  $3 \times 4 = 12$  or  $4 \times 6 = 3 \times 8$ )
- 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 into equal groups to show how many equal groups add up to a specific number. E.g.,  $15 \div 5 = 3$ )
- Fact (used to refer to multiplication facts, e.g.,  $3 \times 2$ )
- Factors (numbers that are multiplied to obtain a product)
- Multiplication/multiply (an operation showing how many times a number is added to itself e.g.,  $5 \times 3 = 15$ )

- Number bond (shows part-part-whole relationship, shown at right)
- Number of groups (factor in a multiplication problem that refers to the total equal groups)
- Number sentence (similar to an equation, but not necessarily having equal sides)
- Ones, twos, threes, etc. (units of one, two, or three)
- Parentheses (e.g., ( ) used around a fact or numbers within an equation)
- Quotient (the answer when one number is divided by another)
- Repeated addition (adding equal groups together, e.g.,  $2 + 2 + 2 + 2$ )
- Rotate (turn, used with reference to turning arrays 90 degrees)
- Row/column (in reference to rectangular arrays)
- Size of groups (factor in a multiplication problem that refers to how many in a group)
- Tape Diagram (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. See the example on the right.)
- Unit (i.e., one segment of a partitioned tape diagram)
- Unknown (the “missing” factor or quantity in multiplication or division)
- Value (how much)



Number bond



Tape Diagram