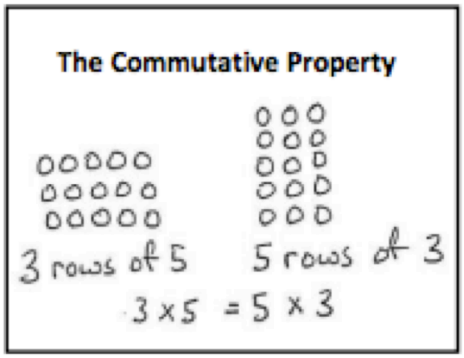
EngageNY/Eureka Math™ Tips for Parents

Grade 3 Module 1

Properties of Multiplication and Division and Solving Problems with 2-5 and 10

In this first module of Grade 3, we build on second grade knowledge of addition and work toward greater fluency. We will also be building arrays (arrangements of a set of objects organized into equal groups in rows and columns), and setting the stage for multiplication and division.



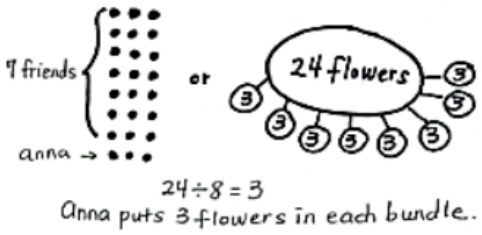
An illustration of the Commutative Property

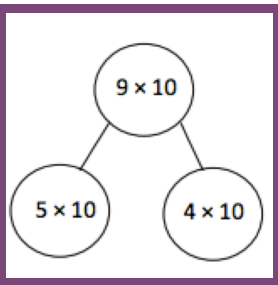
Sample Problem from Module 1:

(Example taken from Module 1, Lesson 7)

Anna picks 24 flowers.
She makes equal bundles of flowers and gives 1 bundle to each of her 7 friends.
She keeps a bundle for herself too.

How many flowers does Anna put in each bundle?





A number bond illustration of the Distributive Property:

9 x 10 = (5 x 10) + (4 x 10)

Terms, Phrases, and Strategies in this Module:

Array: a set of numbers or objects that follow a specific pattern, a matrix

Commutative Property: 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 × 4 = 12

Distributive Property: e.g. 12 × 3 = (10 × 3) + (2 × 3). The 3 is the multiplier and the 12 is decomposed into 10 and 2

Factors: i.e., numbers that are multiplied to obtain a product

Quotient: the answer when one number is divided by another

+ How you can help at home:

- Have your student set out groups of small objects in arrays (equal groups in rows and columns) and write the accompanying multiplication equation
- Encourage your student to practice multiplication facts for 2s, 3s, 4s, 5s, and 10s until they know them fluently

Key Idaho Content Standards:

- ***Represent and solve problems involving multiplication and division***
  - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities
- ***Understand properties of multiplication and the relationship between multiplication and division***
  - Apply properties of operations as strategies to multiply and divide
  - Understand division as an unknown-factor problem
- ***Multiply and divide within 100***
  - Fluently multiply and divide within 100
- ***Solve problems involving the four operations, and identify and explain patterns in arithmetic***
  - Solve two-step word problems using the four operations

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