

Represent and solve problems involving addition and subtraction within 20

Standard 1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Key Elements: Adding three numbers by combining two numbers in a way that makes sense to the student (for example, making a group of ten).

Joining Groups: Joining groups means to take two of the three addends and combine them in a way that makes sense to the student. Numbers can be combined to make a ten, make a “friendly sum”, etc. **For example:**

Three different groups of objects are represented. For example: Johnny has 5 blue shirts, 4 yellow shirts, and 6 orange shirts. How many shirts does Johnny have?

$$5 + 4 + 6 = ?$$

Associative Property (Making Ten Strategy): The Associative Property states that in addition problems, numbers can be grouped together without affecting the overall sum. Students can use the associative in their three addend equations to make a ten strategy, to create friendly numbers when adding. Example: Johnny has 5 blue shirts, 4 yellow shirts, and 6 orange shirts. How many shirts does Johnny have?

$$5 + 10 = ?$$

Progression of Word Problems: (for properties, problems and context)

1. Practice with manipulatives (should have been mastered in Kindergarten)
2. Use pictures or models (should have been mastered in Kindergarten)
3. Do equations (they should understand the concept from using manipulatives and pictures before they do equations.) (should have been introduced and practiced in Kindergarten)