CGI Problem Type Resource

**Standards addressed by these problems: 1.OA.4, 1.OA.1, 1.OA.3, 1.OA.5, 1.OA.6, 1.OA.8\***

*\*Teacher note, to address the standard 1.OA.8, one possible activity is to FIRST have the students solve the below story problems using a strategy that makes sense to them. After the students have independently solved the story problem you can add to your discussion, “I know many of you solved this story in different ways. Some of you added and some of you subtracted. However, a good mathematician is flexible and can think about it in more than one way. Let’s also think about the number sentence (and/or equation) that goes with the story problem.” Then at that time also write the number sentence that goes with the story problem by indicating the unknown value using a box .*

Overall purpose of these problem types: Students will use their **understanding of operations (inverse operation) and algebraic reasoning (commutative property, associative property) to relate the operation of subtraction to a missing addend problem**. You want to promote flexibility in student thinking to where they see you can add or subtract to solve a missing addend story problem. Possible problems that can be used to address are JCU, PPW-PU.

*(NOTE: Any of these problems can be used as a pre/post test or ongoing assessment of students’ understanding.)*

**JCU (Join-Change Unknown):**

Rachel has \_\_\_\_ silly bands in her collection. How many more does she need to have \_\_\_\_ silly bands?

(1, 10) (2, 15) (3, 20)

Thomas has \_\_\_\_\_ toy cars. For his birthday, his friends give him some more toy cars. Now he has \_\_\_\_ toy cars. How many did his friends give him?

(3, 10) (1, 11) (4, 20)

**PPW-PU (Part-Part-Whole, Part Unknown)**

Mr. Smith has \_\_\_\_ students in his classroom. \_\_\_\_ are boys and the rest are girls. How many girls does Mr. Smith have in his classroom?

(20, 2) (10, 3) (15, 5)

Jayden has \_\_\_\_\_ blue marbles and some red marbles. He has \_\_\_\_ marbles altogether. How many of his marbles are red?

(2, 10) (1, 15) (6, 20)