CGI Problem Type Resource

**Standards addressed by these problems: 1.NBT.1, 1.NBT.2, 1.NBT.4, 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 . I have listed the number sentence that goes with each story problem, next to the story problem types’ name.*

Overall purpose of these problem types: Students will use their **understanding of operations (inverse operation), algebraic reasoning (commutative property, associative property), and base ten understanding to solve problem types with numbers that will help extend the counting sequence up to 120**. Since children are counting when solving any problem type, any problem type can be used. In order to address this standard you need to ensure your numbers go high enough in order to extend the counting sequence up to 120. MULT and MDIV will also promote the skip counting sequence. Possible problems that can be used to address are JRU, JCU, JSU, SRU, SCU, SSU, PPW-WU, PPW-PU, MULT, MDIV, and PDIV.

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

**JRU (Join-Result Unknown):**

Matthew had 98 marbles. For his birthday he got 20 more marbles. How many marbles does Matthew have now?

**JCU (Join-Change Unknown)**

Rose had 60 stickers in her collection. Her mom gave her some more. Now Rose has 120 stickers in her collection. How many did her mom give her?

**JSU (Join-Start Unknown)**

There were some kids swimming in the pool. 20 more kids jumped in the pool. Now there are 120 kids swimming in the pool. How many kids were in the pool in the beginning?

**SRU (Separate-Result Unknown)**

Louis had 120 dollars in his piggy bank. He spent 45 dollars on a video game. How many dollars does Louis have left?

**SCU (Separate-Change Unknown)**

Mario had 118 Little Debbie snacks at his school carnival. Some of the Little Debbie snacks were eaten. Now, there are 48 Little Debbie snacks left. How many Little Debbie snacks were eaten at his school carnival?

**SSU (Separate-Start Unknown)**

Smiley Face Elementary had some money they had raised to buy new books. They spent 100 dollars on books for the new school year. Now, they have 20 dollars left. How much money did Smiley Face Elementary start with?

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

John had 75 brown rocks and 30 white rocks in his rock collection. How many rocks did he have altogether in his rock collection?

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

At the school carnival they blew up 101 red and blue balloons. 50 of the balloons were blue and the rest were red. How many red balloons did they have?

**MULT**

Carla has 11 bags of beads. There are 10 beads in each bag. How many beads does Carla have?

**MDIV**

There were 120 kids going on a camping trip. 10 kids can sleep in each tent. How many tents will they need?

**PDIV**

There were 120 kids going on a camping trip. The kids shared 12 tents so that there was the same number of kids in each tent. How many kids were in each tent?