Writing Algebraic Equations

Operations and Algebraic Thinking

Concept

To recognize and write algebraic equations.

Materials needed

Each student will need:

- each of the three sentence frames
- a white board
- dry erase marker
- a hundreds chart
- a counter

Directions

Students will practice writing algebraic equations. Each student will have 3 sentence frames. Each frame will have one of the following written on it:

- 4 less than 'x' equals _____.
- 5 more than 'x' equals _____.
- x' increased by 3 equals ____.

- The student will choose a sentence frame.
- Next the student will 'drop' their counter onto the hundreds chart. (Ex. Counter lands on 73).
- The student will then practice writing the equation on the whiteboard, writing their 'chosen number' on the blank line. (Ex. x - 4 = 73).
- The student will then proceed to answer their equation. The student will check their answer by using the 100's chart, or perform the opposite operation to determine if the answer is correct.
- The student will then move on to the next sentence frame, repeating the same steps.

Differentiate

To differentiate instruction for students struggling with writing equations, the teacher could partner students up and make this a "Math With Someone" activity. Therefore, students would have a peer to assist in writing equations or to 'check' their answers. Struggling students could also be given only one of the sentence frames to work with. Struggling students could also have a provided example to look at.

To differentiate instruction for advanced students, teachers could use numbers from number charts that go higher than 100.

CCSS

Fourth Grade - Operations and Algebraic Thinking (4.OA.1) To interpret a multiplication sentence as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.

This math activity could also be used for Math with Someone and Writing in Math. For Math with Someone, students could have a partner check their answers and/or assist in writing equations, then switch roles. For Writing in Math, students could explain their thinking process on how to write an equation, and what 'x' stands for.