Illustrative Mathematics

1.OA Boys and Girls, Variation 2

Alignment 1: 1.OA.1

Grade	1
Domain	OA: Operations and Algebraic Thinking
Cluster	Represent and solve problems involving addition and subtraction.
Standard	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

This task is rated +0 (0 ratings) • Log in if you'd like to rate this task

9 children were in the class. How many boys and how many girls could have been in the class?

Solve the problem. Write an equation. Draw a picture and use it to explain your answer.

Commentary:

This task represents the Put Together/Take Apart with both addends unknown context for addition and subtraction (see Table 1 in the glossary of the CCSSM for all addition and subtraction problem types). Once a student finds one correct answer, he/she can be encouraged to find another. Ask the student to use objects, pictures, or equations to represent each answer.

Please see the K, Counting and Cardinality; K–5, Operations and Algebraic Thinking Progressions Document for in-depth information about issues related to students' learning of these kinds of problems.

Solution: Answers

Listing the possible pairings of boys and girls in a systematic way might help the student show that s/he has found all of the possible pairings.

There are 10 possible solutions. Students can select a number between 0 and 9 to represent the number of boys (or girls) and then find the number of girls (or boys, resp).

Possible equations:

- $9=0+9$
- $9=1+8$
- $9=2+7$
- $9=3+6$
- $9=4+5$
- $9=5+4$
- $9=6+3$
- $9=7+2$
- $9=8+1$
- $9=9+0$

Note that students may write the total on either side of the equation.