



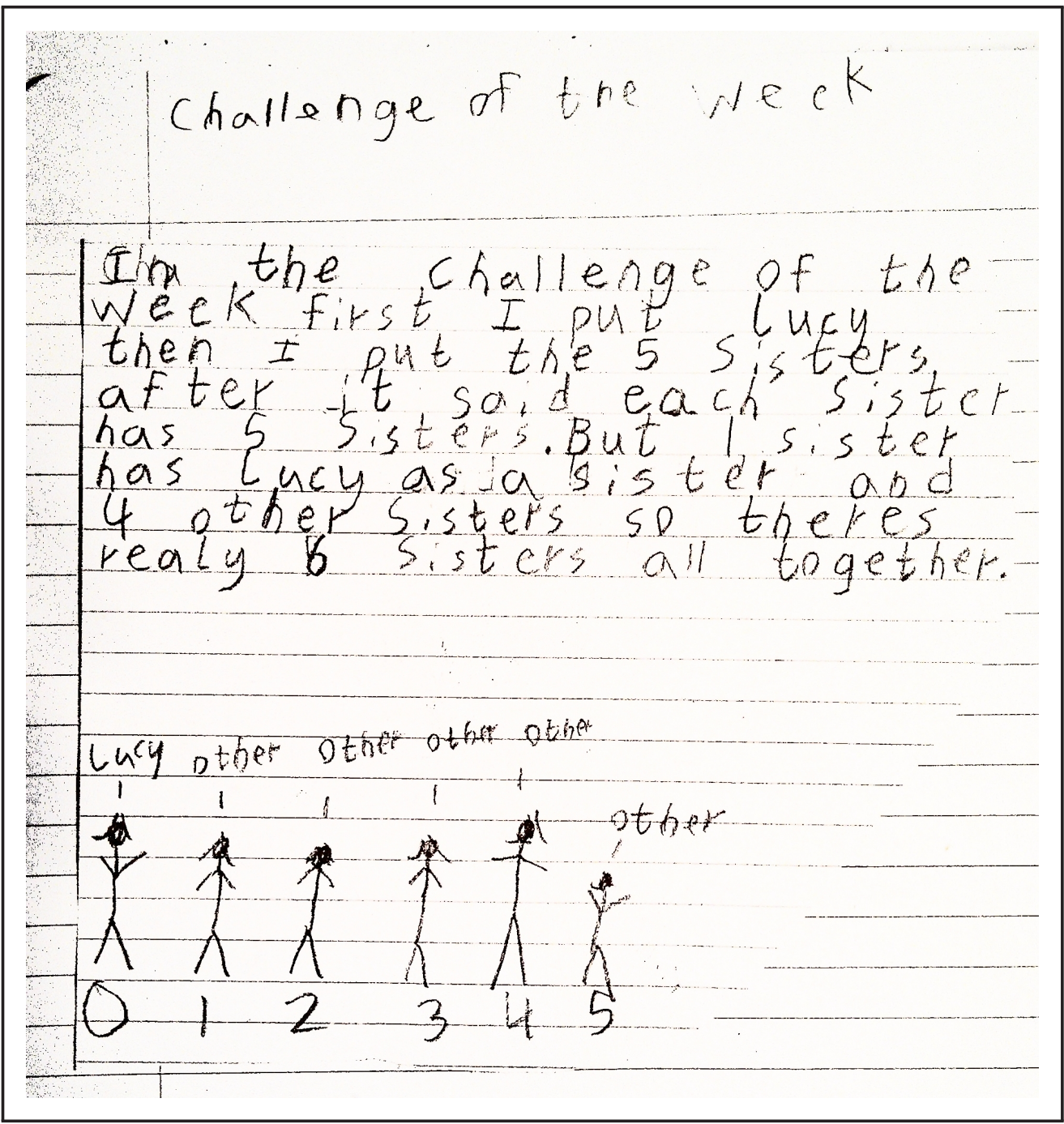
OUR GOALS

Using an inquiry-based approach, we aim to

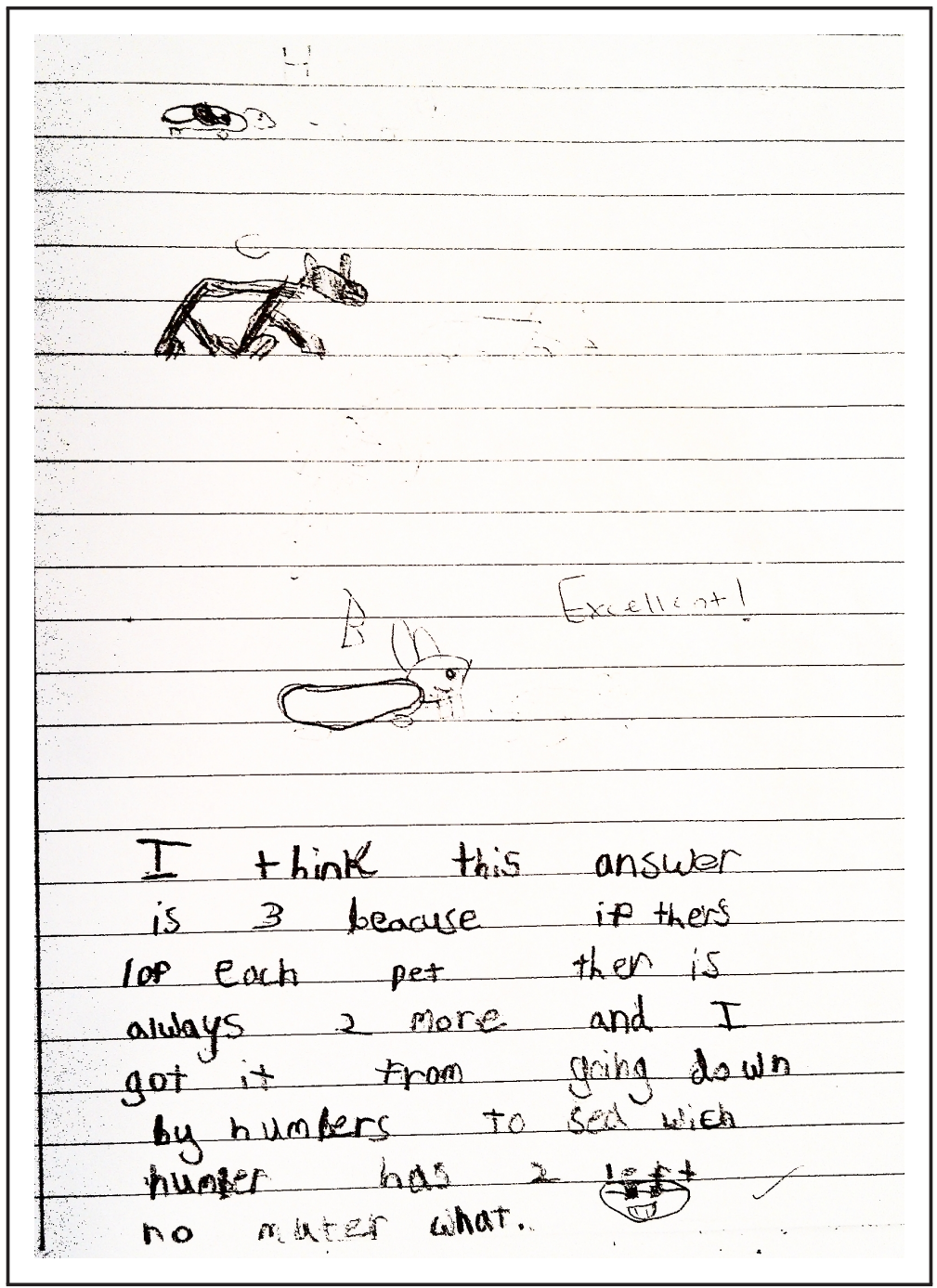
- develop students' mathematical maturity,
- emphasize the importance of good written and verbal communication, and
- encourage students to approach problems from many angles.

CHALLENGE PROBLEM OF THE WEEK

Each Tuesday, students are given a challenge problem to work on for the week. Ideal challenge problems require students to question their intuition and explore different problem solving strategies. Students who clearly explain their thinking (even if their solution is incorrect) are entered in a prize drawing.



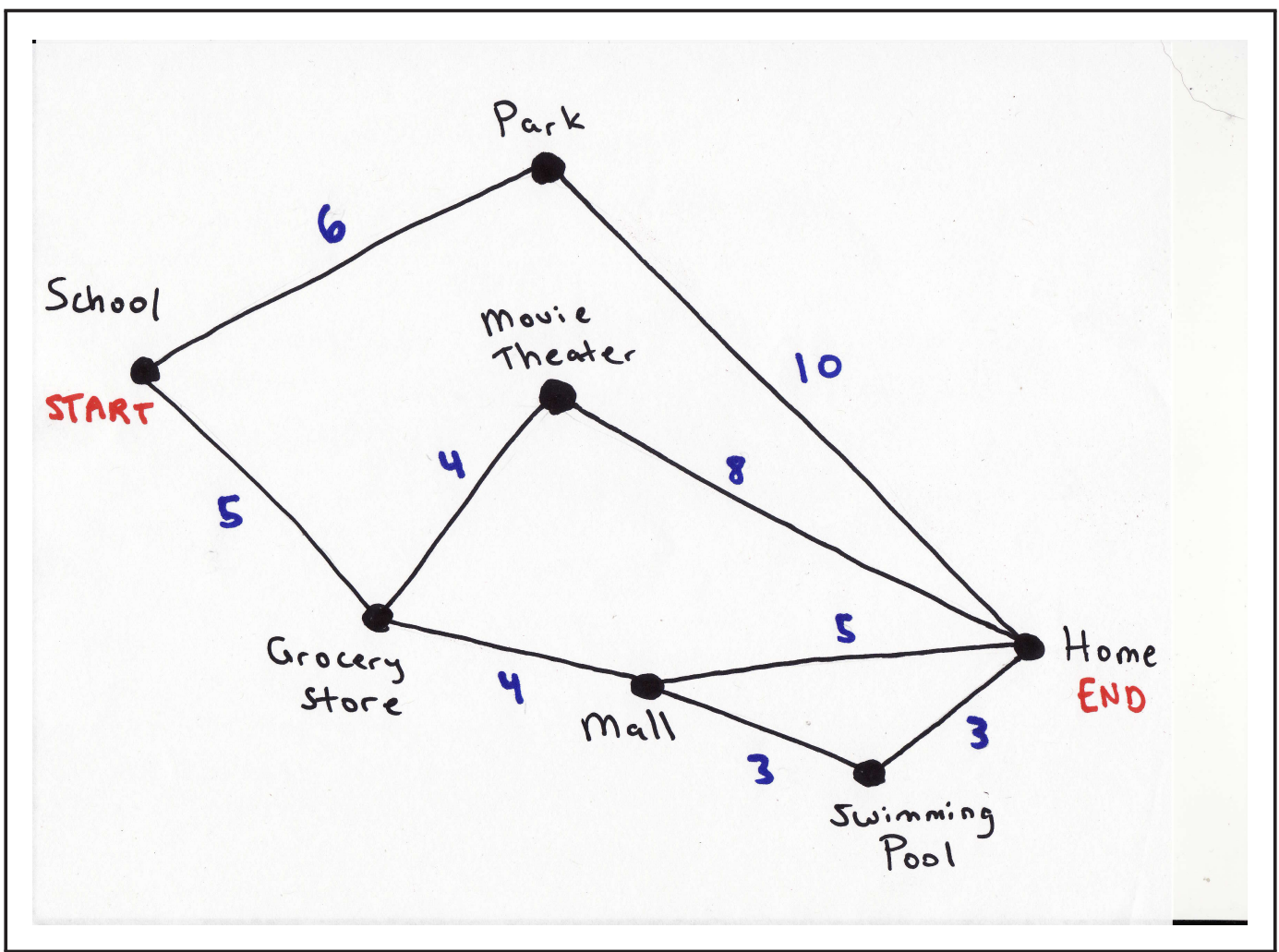
Lucy has five sisters. Each of Lucy's sisters has five sisters. How many children are in the family all together?



How many pets does George have if all but two are hamsters, all but two are rabbits, and all but two are cats?

INTEGRATING FELLOW'S RESEARCH

In order to share aspects of Rebecca's research in optimization theory, we introduced students to a classic optimization problem called the **Shortest Path** problem. The goal is to travel from the start point to the finish point in the minimum possible distance. Students acted out walking a "short" path and a "long" path, and then compared the possible paths in the diagram to determine the shortest path.



MONSTER MATH METHODS

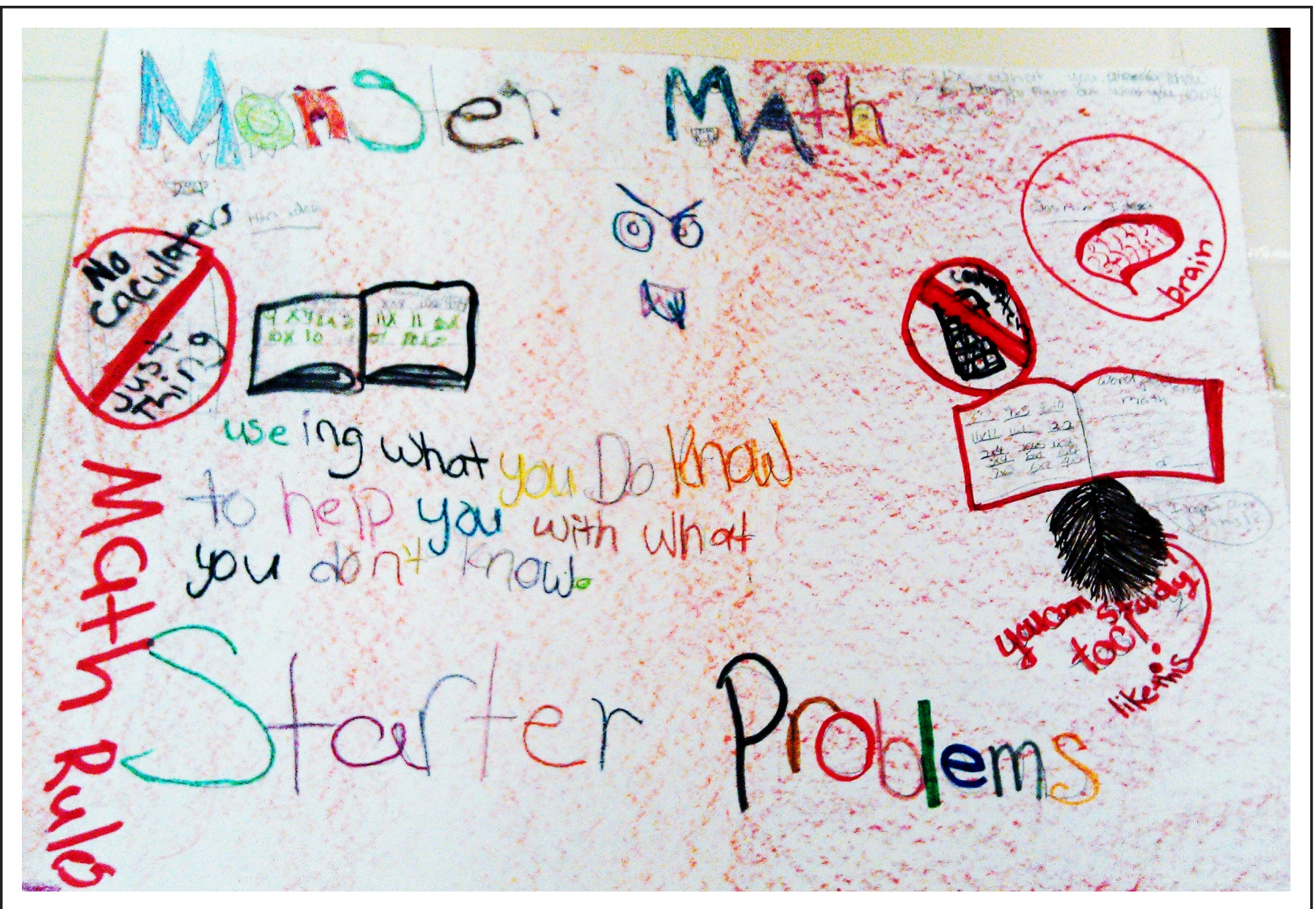
We have written some Common Core Standards for Mathematical Practice as age-appropriate catchphrases.

Explain your thinking



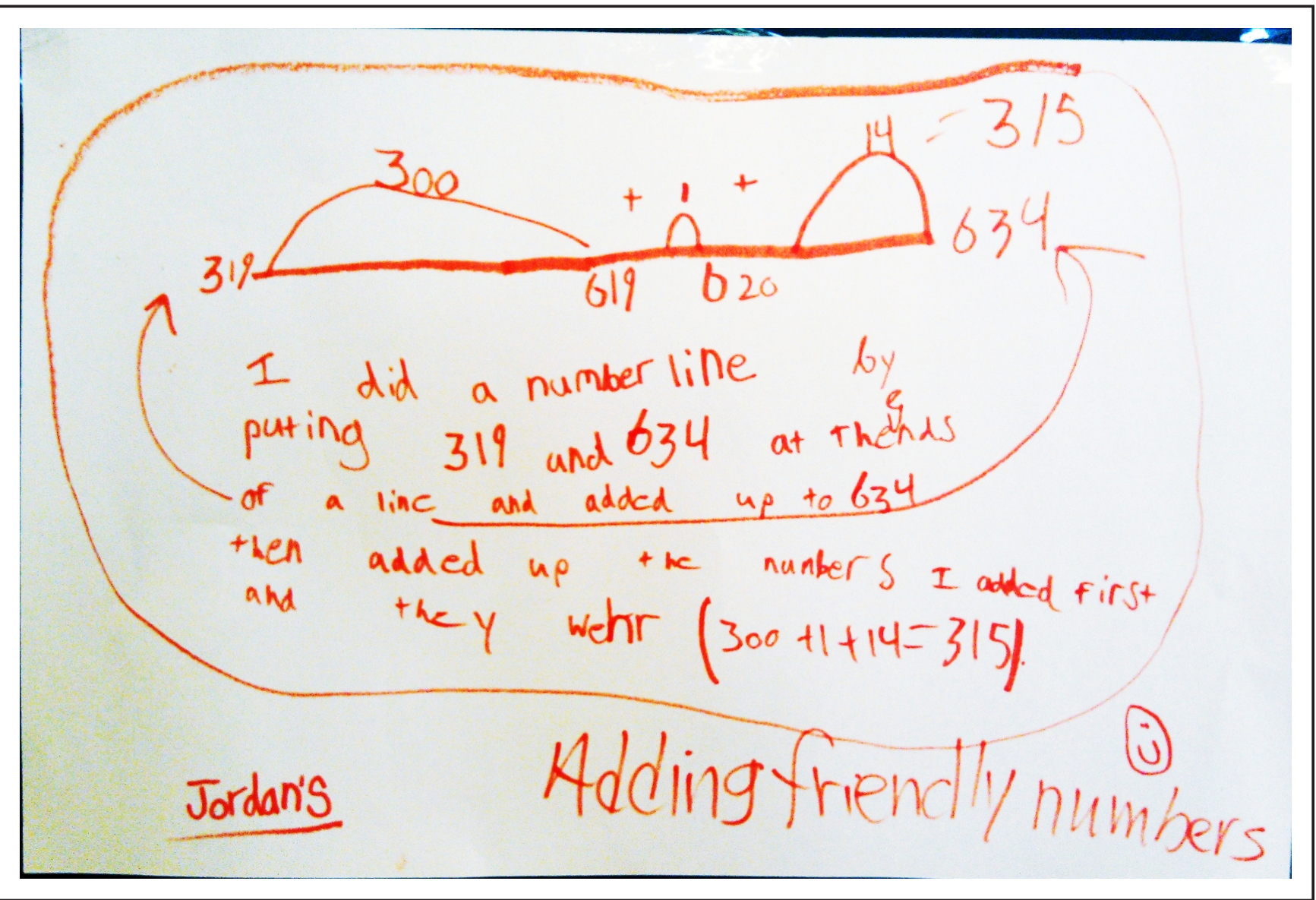
Students created a lesson plan to introduce multiplication, taught their lesson to 3rd graders, and reflected on their success.

Use what you know to help solve what you don't know



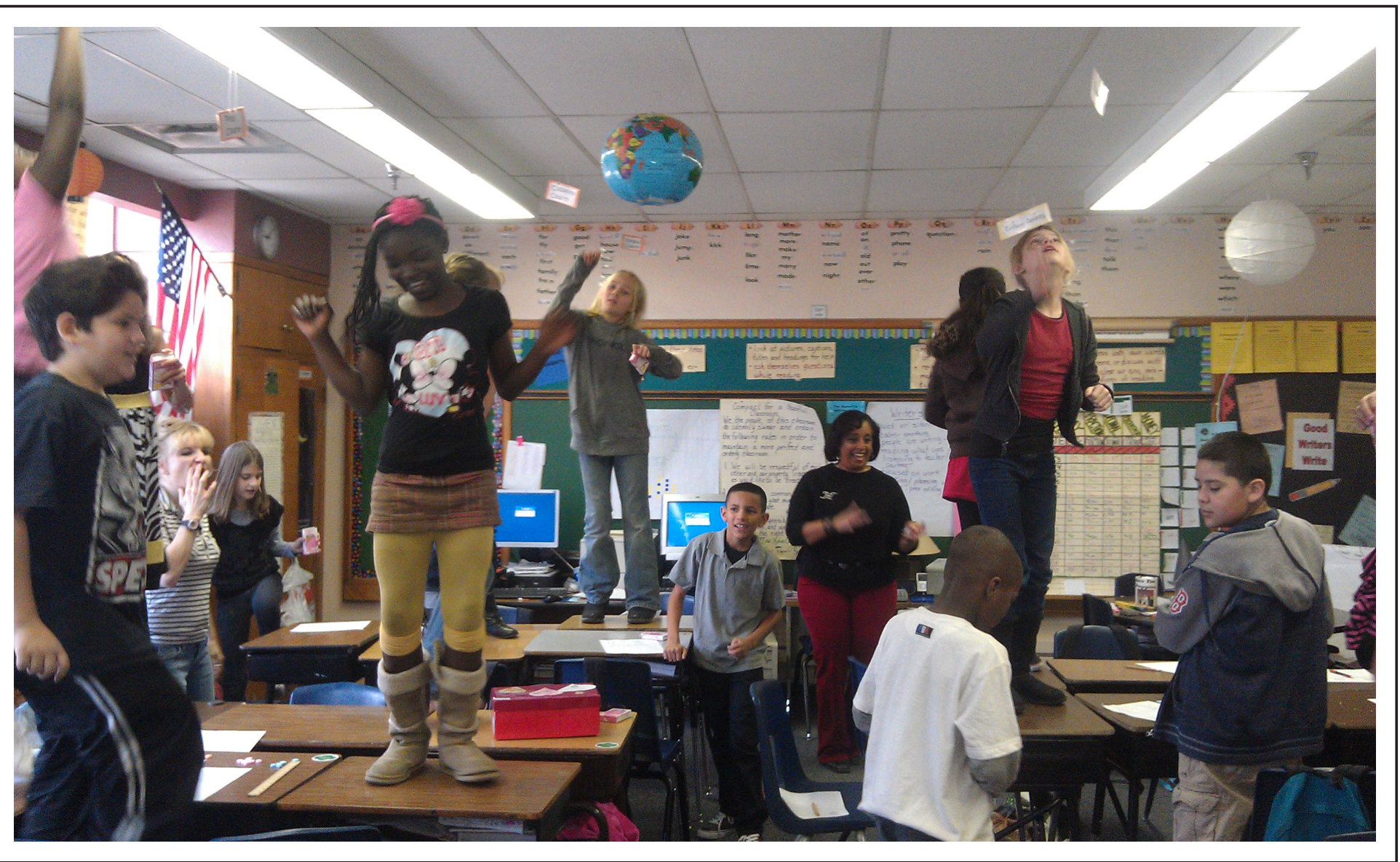
We discuss using smaller, easier problems to help solve larger problems in addition, subtraction, and multiplication.

Does it make sense?



Students determine if their answer fits the context of the problem, and check their work using alternate strategies.

Persevere



We occasionally dance to James Brown's song "If you don't get it the first time, back up and try it again."

STUDENT QUOTES

"If you can do one thing (in math), you can do a lot more."

"If you explain your work, it will be easier to use it."