Diminishing Return

PreK

Materials:

- A picture of the four-pack of drinks and a picture of the six-pack of drinks

Discussion on the rug:

The teacher holds up the pictures of the four-pack.

"Here is a picture of a drink holder. How many drinks does this holder have?"

The teacher holds up the pictures of the six-pack.

"Here is a picture of a different drink holder. How many drinks does this holder have?"

The teacher asks students to explain their answers. Some students come forward and demonstrate to the class how they arrived at their answers.

Showing the four-pack, the teacher says, **"If we have two helpers and each helper carries one of these holders of drinks, how many drinks will we have in all?"**

In small groups: Each student has access to counting manipulatives. The teacher asks the following questions. She only proceeds to the next question if students have success with the current question.

"If 12 of us are going on a picnic, how many drink holders of this size (four-pack) do we need to take?"
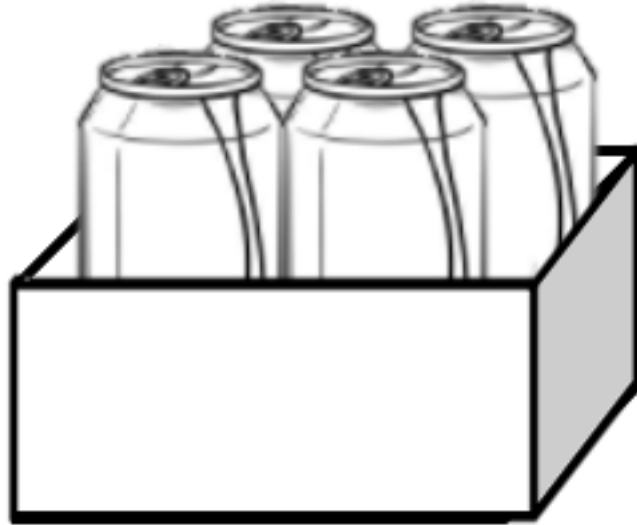
"If 12 of us are going on a picnic, how many drink holders of this size (six-pack) do we need to take?"

"Why do we need fewer six-packs than four-packs?"

"Tell me how you figured out your answer and how you know."

If students are successful with these values, the teacher can increase the number of students going on a picnic, being careful to use multiples of four and three (12, 24, 36, etc.). At the end of the investigation, students either discuss or dictate responses to the summary questions.

4-Pack

6-Pack