

OPEN AND PARALLEL TASKS FOR GRADE 1

In *Great Questions: Great Ways to Differentiate Mathematics Instruction*, (2009) NCTM, Marion Small proposes big ideas for each strand of mathematics and then presents the strategy of using Open and Parallel tasks related to the same big mathematical ideas as a way to better meet the needs of all students in a classroom.

Grade 1

These differentiated tasks are based on the problems on page 32 of *Making Sense of Problem Solving: Targeting NCTM Curriculum Focal Points*, Level B/Grade 1(2008) Teacher to Teacher Publications, Inc.

Open Task:

One of the measurements on my body is 32 cubes long. What might I have measured?

Parallel Tasks

Option 1:

Which is longer: the length of your hand from wrist to the tip of the tallest finger or the length of your foot?

Option 2:

Which is longer: the length of your knee to your hip or the length of your knee to your ankle?

Notes about the Level B/Grade 1 Tasks:

Another way to create an open task is to give students the answer and have them design the question. In this open task there will likely be multiple body parts that measure the length of 32 cubes. Use a string that has been cut the same length as the 32 cubes to conform to curved body measures.

In the Parallel Tasks, Option 1 would be the task intended to target struggling students. They can easily place their hand next to their foot to directly compare lengths. Option 2 proves to be more of a challenge because students cannot compare each section of the leg directly as they can in Option 1. They will most likely have to get assistance in measuring both below and above the knee. Productive class discussion can be held on strategies for how to go about accurately measuring the parts of their leg. The task can also be extended to have students hypothesize and gather data for whether one leg measure is always longer than the other.