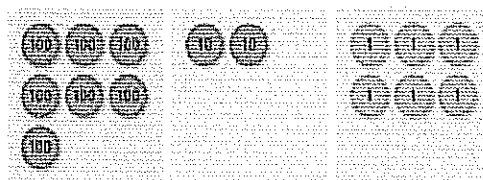
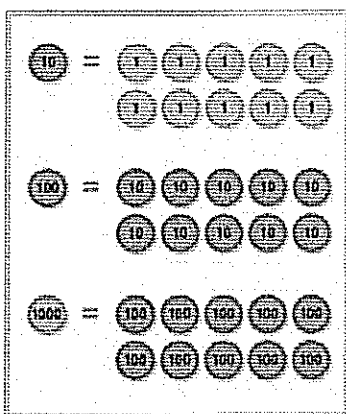


Number Disks

Grade Level 2 – 5

Description



Place Value Chart with Number Disks

Number disks are non-proportional units used to further develop place value understanding. Like money, the value of the disk is determined by the value printed on it, not by its size. Number disks are used by students through Grade 5 when modeling algorithms and as a support for mental math with very large whole numbers. Whole number place value relationships modeled with the disks are easily generalized to decimal numbers and operations with decimals.

Instructional Strategies

- Play pattern games: “What is 100 less than 253?” Students simply remove a 100 disk and state and/or record their new number.
- Play partner games: Partner A hides the disks from Partner B within a file folder. Partner A says, “I am looking at the number 241. I will make 10 less (physically removing a 10 disk). What is 10 less than 241?” Partner B writes the answer on his personal board/notebook and then states a full response: “10 less than 241 is 231.” Partner A removes the folder and the partners compare the written response with the disks.
- Perform all four operations with both whole numbers and decimals on mats.
- Use materials to bridge to recording the standard algorithms for all four operations with both whole numbers and decimals