Master Non-Standard Partitioning (7 digits) A

Rationale

In this practical step, pupils build on their understanding of standard partitioning of 7-digit numbers and learn that numbers can be combined and partitioned in different ways. They will combine non-standard place value parts to compose 7-digit numbers. Then, they will partition into non-standard place value parts to decompose 7-digit numbers. For example, 8,325,746 partitions into 5,000,000, 3,300,000, 20,000, 5,400, 300, 40 and 6

Pupils will use place value counters to combine and partition numbers and they will identify which place value parts have been broken.

Key Stem Sentences

- The _____ place value part(s) has/have been broken.
- _____ combine to make ___
- ___ partitions into _____

Key Vocabulary

- 1,000,000s / 100,000s / 10,000s / 1,000s / 100s / 10s / 1s
- compose / decompose
- combine / partition

Key Representations

Place Value Counters

The millions and the thousands place value parts have been broken.

5,000,000, 1,100,000, 60,000, 8,000, 1,200, 30 and 1 combine to make 6,169,231

6,169,231 partitions into 5,000,000, 1,100,000, 60,000, 8,000, 1,200, 30 and 1
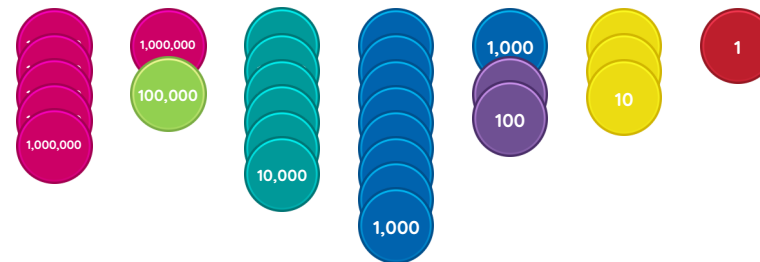
Common Errors or Misconceptions

- Pupils may compose or decompose incorrectly. For example, 2,000,000, 2,300,000, 170,000, 450, 20 and 9 combine to make 4,374,529

Pupils will FLOURISH if they can...

- accurately combine and partition 7-digit numbers in different ways.
- explain their understanding in multiple ways using their own words and representations.