Master Non-Standard Partitioning (3 Decimal Places) A

Rationale

In this practical step, pupils build on their understanding of standard partitioning of decimal numbers and learn that they can be combined and partitioned in different ways. They will combine non-standard place value units to compose decimal numbers with 3 decimal places. Then, they will partition into non-standard place value units to decompose decimal numbers with 3 decimal places. For example, 17.895 partitions into 10, 7.5, 0.39 and 0.005

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

- 100s / 10s / 1s / 0.1s / 0.01s / 0.001s
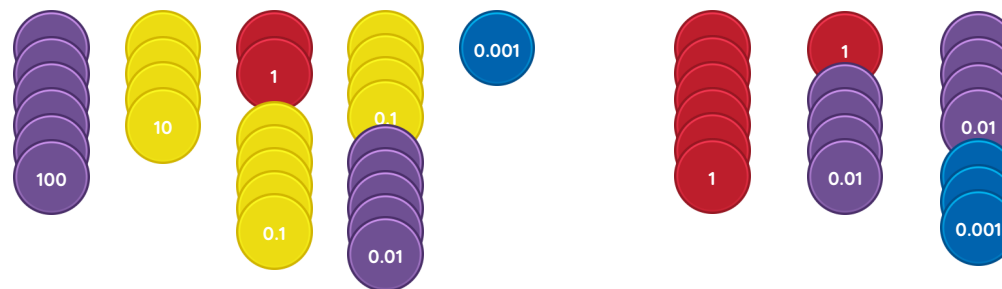
- compose / decompose

- combine / partition

Key Representations

Place Value Counters

The tenths place value part has been broken.

600, 40, 2.5, 0.45 and 0.001 combine to make 642.951

The ones and hundredths place value parts have been broken.

7.083 partitions into 6, 1.04 and 0.043

Common Errors or Misconceptions

- Pupils may compose or decompose incorrectly. For example, 25, 1.8, 0.005 and 0.02 combine to make 26.852

Pupils will FLOURISH if they can...

- accurately combine and partition numbers with 3 decimal places in different ways.

- explain their understanding in multiple ways using their own words and representations.