Mini-Map for M.EE.8.NS.1

Subject: Mathematics
The Number System (NS)
Grade: 8

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.8.NS.1 Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one.	**M.8.NS.1** Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Communicate understanding of "separateness" by recognizing objects that are not joined together. Communicate understanding of a subset by recognizing a subset as a set or group of objects within a larger set that share an attribute.	Recognize each object as the part of a whole or unit when shown a whole or unit containing a group of objects.	Communicate understanding that when fractional parts are added, it produces a larger portion of the whole, and that when fractional parts are separated, it results in a smaller portion of the whole. Decompose fractions into sums of unit fractions with the same denominator (e.g., 3/7 = 1/7 + 1/7 + 1/7).	Subtract two fractions with common denominators (e.g., 4/5 - 1/5 = 3/5).	Add or subtract two fractions where one fraction has a denominator of 10 and one has a denominator of 100 (e.g., 5/10 + 1/100 = 50/100 + 1/100 = 51/100).

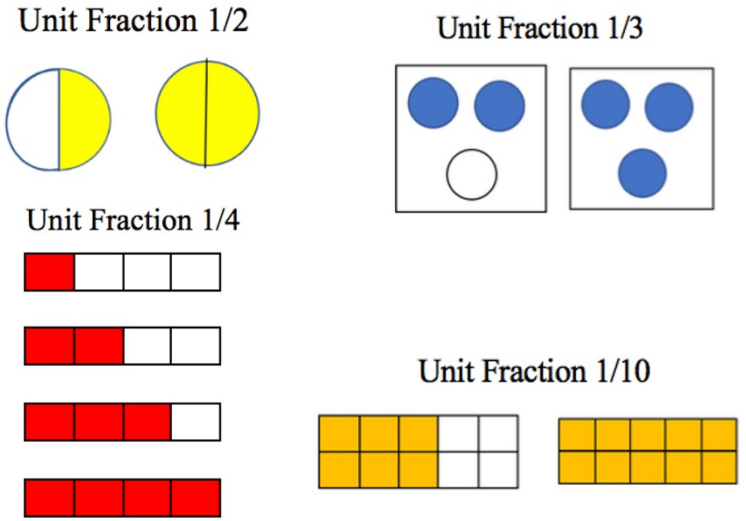
Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

Subtracting fractions requires a student to be able to recognize that two or more sets or groups of items exist. Work on this skill using a variety of sets. Help students recognize when items are grouped together into a set or separated out. As educators present a set, they label it (e.g., two balls, one marker, three CDs), count the items, label it again, and encourage students to use numerals to label and count the separate sets. Use tools like the ten-frame to point out whole and parts (e.g., a set of 9 is part of 10).

How is the Distal Precursor related to the Target?

As students work toward greater understanding of sets, educators will provide students with many set models (see below) of fractions using the same unit fraction, either halves, thirds, fourths, or tenths. Students will work on identifying the whole.



Instructional Resources

Released Testlets
See the Guide to Practice Activities and Released Testlets.
Using Untested (UN) Nodes
See the document Using Mini-Maps to Plan Instruction.

[Link to Text-Only Map]

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