

Mini-Map for M.EE.6.EE.3

Subject: Mathematics

Expressions and Equations (EE)

Grade: 6

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.6.EE.3 Apply the properties of addition to identify equivalent numerical expressions.	M.6.EE.3 Apply the properties of operations to generate equivalent expressions.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Combine two or more sets of objects to form a new set. Compare two or more sets containing objects to communicate whether a set has the same, different, or an equal number of objects than the other set.	Represent addition or subtraction word problems or models with equations (e.g., 8 marbles + 3 marbles = 11 marbles). Recognize that the unknown quantity in an equation is represented using a symbol or letter (e.g., $5 + b = 8$).	Apply commutative (e.g., $3 + 4 = 4 + 3$) and associative [e.g., $2 + (3 + 5) = (2 + 3) + 5$] properties of addition to add two or more numbers. Evaluate an equation to be true or false by determining whether the numerical value on both sides of an equation is the same or different (e.g., analyze whether $5 + 7 = 8 + 4$).	Create equivalent expressions by applying commutative and associative properties of addition (e.g., the expression $5 + 8$ is equal to $8 + 5$ due to the commutative property of addition).	Recognize or generate an equivalent expression involving addition or subtraction operations using commutative and associative properties of addition and multiplication [e.g., recognize that the expression $(8 + 6) \times 5$ is equivalent to $5 \times (6 + 8)$].

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

Understanding how to evaluate equations and using the properties of addition to create equivalent expressions 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. The educator presents a set, labels it (e.g., two balls, one marker, three CDs), counts the items, labels it again, and encourages students to use numbers to label and count the separate sets. Then, combine the sets, give it a new label, and count the set.

NOTE: Educators can work on the Initial Precursor level using the sets of numbers that students working at the Target level are adding and subtracting.

How is the Distal Precursor related to the Target?

As students begin to understand labeling and counting small sets, they begin to use the number sequence and become more adept at tracking individual objects. Work on this skill using a variety of sets, labeling and counting the sets, and moving items in and out of the sets, labeling and counting the set again. Additionally, the educators will pair those sets with the symbolic representations for addition and subtraction (e.g., $3 + 2 = ?$, $3 - 2 = ?$).

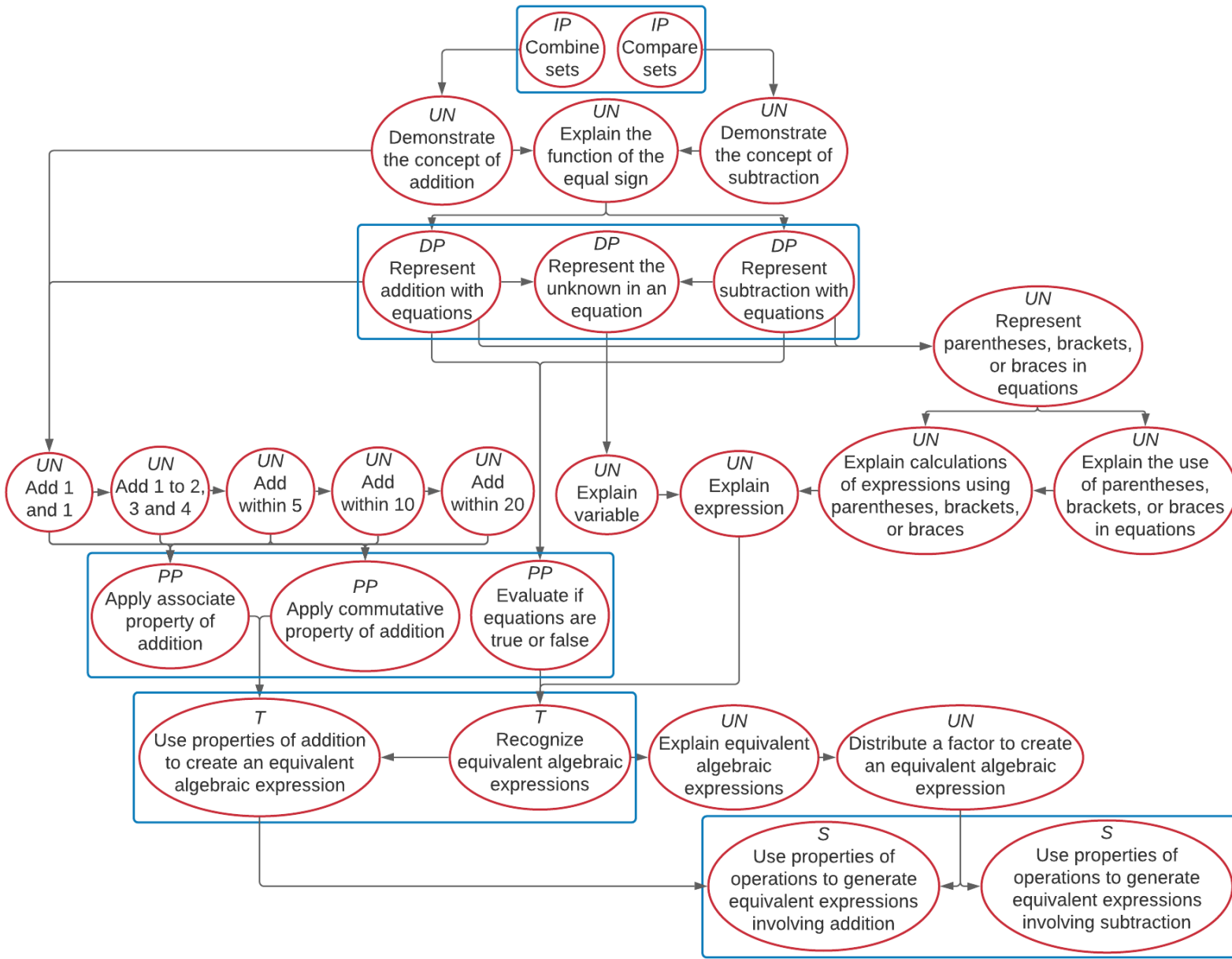
NOTE: Educators can work on the Distal Precursor level using the sets of numbers that students working at the Target level are adding and subtracting.

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](#)

M.EE.6.EE.3 Apply the properties of addition to identify equivalent numerical expressions.



Map Key	
IP	Initial Precursor
DP	Distal Precursor
PP	Proximal Precursor
T	Target
S	Successor
UN	Untested
Boxes indicate tested nodes	