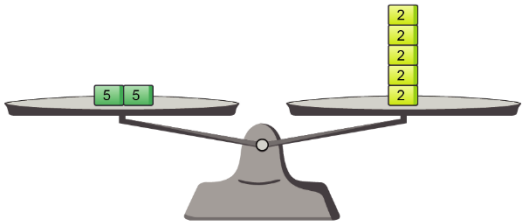
Patterning and Algebra

Activity 11 Assessment
Using Equations to Solve Problems

Variables and Equations

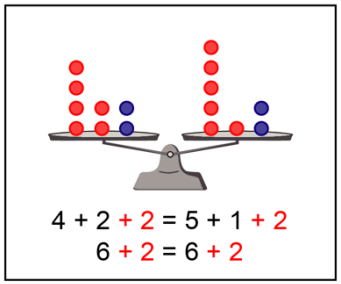
Evaluates a given expression (using the order of operations) $9 \times 8 - 3 + 16 \div 4 = 72 - 3 + 4$ $= 73$ "I have to do multiplication and division first. If the order isn't followed and I perform the operations in the order in which they appear, I get 21 R1."	Writes equivalent expressions (for the same number) 5×5, $30 \div 2 + 10$, $3 \times 5 + 2 \times 6 - 2$ "All of these expressions have value 25."	Represents balance using concrete materials  "The expressions 5 + 5 and 2 × 5 are equivalent because the pans are balanced. Both have value 10."

Observations/Documentation

Patterning and Algebra

Activity 11 Assessment
Using Equations to Solve Problems

Variables and Equations (cont'd)

Represents preservation of equality symbolically (with or without an unknown) $4 + 2 = 5 + 1$  $4 + 2 + 2 = 5 + 1 + 2$ $6 + 2 = 6 + 2$ "I added 2 to each side to keep the balance."	Finds the unknown value in an equation representing a situation $\blacklozenge - 8 = 6$ $\blacklozenge + 8 - 8 = 6 + 8$ $\blacklozenge = 14$ "I added 8 to each side to preserve equality and to isolate ♦."	Solves problems using equations "I have 2 sets of cards, with the same number of cards in each set. I have 24 cards. How many cards are in each set?" "Let ■ represent the number of cards in each set." $2 \blacksquare = 24$ $2 \blacksquare \div 2 = 24 \div 2$ $\blacksquare = 12$ "There are 12 cards in each set."

Observations/Documentation
