Activity 13 Assessment
Variables and Equations Consolidation

Solving Inequalities

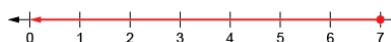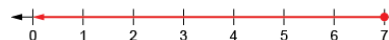| Recognizes inequality symbols and their meaning in various inequality equations	Represents solutions to simple inequalities by graphing on a number line and testing solutions.	Uses inverse operations to re-write inequalities, then solves.	Flexibly solves inequalities, then verifies and graphs the solutions.
$m > 6$ $m \geq 6$ "Each time, the unknown can be any number greater than 6. In the second equation, it could also be 6. There are many quantities that would work."	$\blacksquare + 3 \leq 10$ $\blacksquare \leq 7$ "The unknown plus 3 needs to be less than or equal to 10. I could count on 7 from 3 to get 10. So, I know the unknown must be 7 or less."	$\blacksquare + 3 \leq 10$ $\blacksquare \leq 10 - 3$ 	$18 - m < 8$ "What numbers can I take away from 18 for the answer to be less than 8?" I can rearrange the equation to find the unknown: $18 - 8 < m$

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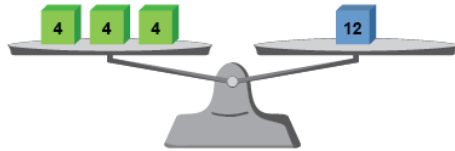
Activity 13 Assessment
Variables and Equations Consolidation

Solving Unknowns in Equations

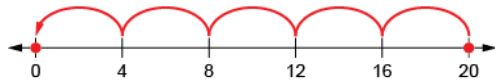| Uses concrete materials to "guess and check."	Draws and interprets pictures using a balance model.	Decomposes and recomposes numbers.
"I know that 3 multiplied by 4 is 12."	$3 \times \blacksquare = 6$ "I placed 1 in each group until the pans balanced; $\blacksquare = 2$"	$3 \times 8 = \blacksquare$ $3 \times 8 = (2 \times 8) + (1 \times 8)$ $(2 \times 8) + (1 \times 8) = 16 + 8$ $16 + 8 = 24$ "I can decompose the equation into parts that can help me solve for the unknown."

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Activity 13 Assessment
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Solving Unknowns in Equations (con't)		
Uses relationships and properties of operations (inverse operations, associative property). $$20 = 4 \times \blacksquare$$ "I rewrote the equation as a division equation: $20 \div 4 = \blacksquare$."	Writes a statement for a given equation and solves for the unknown. $$\blacksquare \div 6 = 3$$ "I had a bag of baby carrots. I shared them equally with me and 5 friends and we each ended up with 3. How many baby carrots were in the bag to start?"	Flexibly uses multiple strategies to solve equations. $$\blacksquare \times 2 = 30 - 4$$ "I know something times 2 is equal to 26, because $30 - 4$ is 26. I can rewrite using division: $26 \div 2 = \blacksquare$. So, the unknown is 13."
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