Activity 9 Assessment
Solving and Graphing Inequalities

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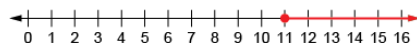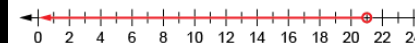| Identifies range of numbers in solution to inequalities.	Represents solutions to simple inequalities by graphing on a number line.	Verifies the solution to an inequality.	Flexibly solves inequalities using various strategies, then verifies and graphs the solutions.
$45 + 5n \geq 100$ $45 + 5n > 100$ "Each time, the unknown can be any number greater than 11. In the second equation, it could also be 11. There are many quantities that would work."	$45 + 5n \geq 100$ $45 + 5n = 45 + 55$ $5n = 55$ $n = 11$ At least 11 cars need to be washed. "Since 11 is part of the solution, I drew a closed circle at 11. Since n must be greater than or equal to 11, the arrow goes to the right."	$45 + 5n \geq 100$ $n \geq 11$ "To check, I substituted a number greater than 11 into the left side. $45 + 5(20) = 145$. Since $145 > 100$, the solution is correct."	$13 > 6 + \frac{d}{3}$ $13 = 6 + \frac{d}{3}$ $6 + 7 = 6 + \frac{d}{3}$ $7 = \frac{d}{3}$ $d = 21$ So, $d < 21$ To check, substitute $d = 15$. $6 + \frac{d}{3} = 6 + \frac{15}{3}$, or 11 $13 > 11$, so the solution is correct.

Observations/Documentation