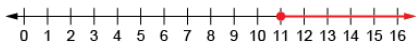
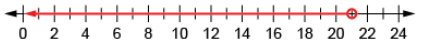
Patterning and Algebra

Activity 9 Assessment

Solving and Graphing Inequalities

Solving and Graphing Inequalities			
Identifies range of numbers in solution to inequalities. $45 + 5n \geq 100$ $45 + 5n > 100$ "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."	Represents solutions to simple inequalities by graphing on a number line. $45 + 5n \geq 100$ $45 + 5n = 45 + 55$ $5n = 55$ $n = 11$ 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."	Verifies the solution to an inequality. $45 + 5n \geq 100$ $n \geq 11$ "To check, I substituted a number greater than 11 into the left side. $45 + 5(20) = 145$. Since 145 > 100, the solution is correct."	Flexibly solves inequalities using various strategies, then verifies and graphs the solutions. $13 > 6 + \frac{d}{3}$ $13 = 6 + \frac{d}{3}$ $6 + 7 = 6 + \frac{d}{3}$ $7 = \frac{d}{3}$ $d = 21$ 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			