Activity 10 Assessment
Solving and Graphing Two-Step Inequalities

Solving and Graphing Two-Step Inequalities

Expresses inequalities in words and with algebraic expressions	Determines whether a given number is part of the solution set for an inequality	Uses inverse relationships to solve two-step inequalities involving whole numbers	Graphs the solution to a two-step inequality on a number line
"If 3 times a number is less than 12, I can write $3x < 12$. If $2m + 5 \geq 11$, I know that this means that twice a number, increased by 5 is greater than or equal to 11."	"I'm going to find the value of the left side of the inequality $2m + 5 \geq 11$, when m is 3. $2(3) + 5 = 6 + 5$ $\qquad = 11$ This is equal to the number on the right side, so 3 is part of the solution set."	Solve $2m + 5 \geq 11$. "For the equation $2m + 5 = 11$, I can write $m \rightarrow \times 2 \rightarrow + 5 \rightarrow 11$ $3 \leftarrow \div 2 \leftarrow - 5 \leftarrow 11$." The solution to the equation is $m = 3$. What happens when $m = 4$? $2m + 5 = 2(4) + 5$ $\qquad = 8 + 5$ $\qquad = 13$ This is greater than 11, so 4 is part of the solution set. I know the solution is $m \geq 3$.	"For the inequality $2m + 5 \geq 11$, my solution was $m \geq 3$. I draw a solid circle at $m = 3$ because it is part of the solution. I draw a line extending to the right to show that all the numbers greater than 3 are also part of the solution."

Observations/Documentation