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| **Solving and Graphing Two-Step Inequalities** | | | |
| Expresses inequalities in words and with algebraic expressions  “If 3 times a number is less than 12, I can write 3*x* < 12.  If 2*m* + 5 ≥ 11, I know that this means that twice a number, increased by 5 is greater than or equal to 11.” | Determines whether a given number is part of the solution set for an inequality  “I’m going to find the value of the left side of the inequality 2*m* + 5 ≥ 11, when *m* is 3.  2(3) + 5 = 6 + 5  = 11  This is equal to the number on the right side, so 3 is part of the solution set.” | Uses inverse relationships to solve two-step inequalities involving whole numbers  Solve 2*m* + 5 ≥ 11.  “For the equation  2*m* + 5 = 11, I can write  *m* Arrow Right with solid fill × 2 Arrow Right with solid fill + 5 Arrow Right with solid fill 11  3 Arrow Right with solid fill ÷ 2 Arrow Right with solid fill – 5 Arrow Right with solid fill 11.”  The solution to the equation is  *m* = 3.  What happens when *m* = 4?  2*m* + 5 = 2(4) + 5  = 8 + 5  = 13  This is greater than 11, so 4 is part of the solution set. I know the solution is *m* ≥ 3. | Graphs the solution to a two-step inequality on a number line  “For the inequality 2*m* + 5 ≥ 11, my solution was *m* ≥ 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** | | | |
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