1. Which of the following is **not** an equivalent form of the compound inequality  
   x + 10 > 20 *and* x + 10 ≥ 26
2. 20 < x + 10 ≥ 26
3. 10 < x *and* x ≥ 16
4. A number line with a closed circle on 16, shading to the right, and an open circle on 10, shading to the left.
5. A number line with a closed circle on 16, an open circle on 10, and shading in between.
6. Determine the type of boundary line and shading for the graph of the inequality -2x - y ≥ -8
7. Dashed line with shading on the side that includes the origin.
8. Solid line with shading on the side that does not include the origin
9. Dashed line with shading on the side that does not include the origin.
10. Solid line with shading on the side that includes the origin.
11. Jimmy’s doctor has put him on a diet of 900 calories per meal. This means he can consume no more than 900 calories at any meal. His options for lunch in the restaurant are as follows:

* Soups that have140 calories per serving
* Mini Burgers that have 100 calories per serving

Which inequality below can be used to find the possible combinations of servings of soup(*s*) and mini burgers(*b*) he can eat and stay within his goal of no more than 900 calories?

* 1. 140s + 100b ≥900
  2. 140s + 100b≤900
  3. 140s - 100b≤900
  4. 140s - 100b ≥900

1. ***Part 1:*** Solve the inequality 12 + x≤ 2x - 2 and show all of your work. You can use <= to represent the less than or equal to symbol.  
   ***Part 2:*** Use complete sentences to describe the graph of the solution from Part 1.
2. ***Part 1:*** Solve the compound inequality 7x - 4 > 31 and 7x - 4 ≤ 59 and show all of your work. You can use <= to represent the less than or equal to symbol.  
   ***Part 2:*** Use complete sentences to describe the graph of the solution from Part 1.
3. ***Part 1:*** Use complete sentences to describe a real-world scenario that could be represented by the inequality 5x + 2y≥45.  
   ***Part 2:*** Choose one ordered pair that is a solution to the given inequality and explain what that ordered pair means in the context of your real-world scenario.