Name _____ Class Period _____

# Fishing Adventures – Solving 2 Step Inequalities

Fishing Adventures rents small fishing boats to tourists for day-long fishing trips. Each boat can only carry 1200 pounds of people and gear for safety reasons. Assume the average weight of a person is 150 pounds. Each group will require 200 lbs. of gear for the boat plus 10 lbs. of gear for each person.
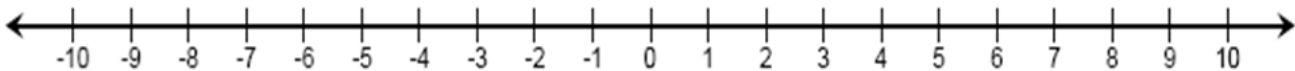
a. Create an inequality describing the restrictions on the number of people possible in a rented boat. Graph the solution set.
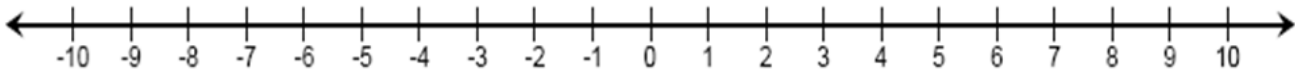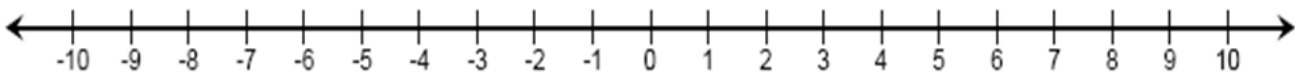

b. Several groups of people wish to rent a boat. Group 1 has 4 people. Group 2 has 5 people. Group 3 has 8 people. Which of the groups, if any can safely rent a boat? What is the maximum number of people that may rent a boat together?
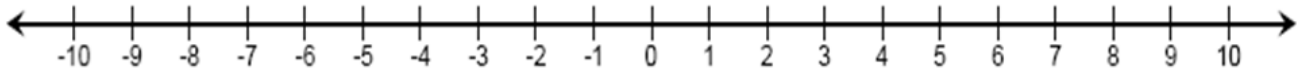
Solve and graph the following 2 step inequalities.
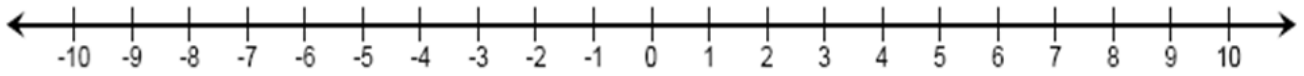
1) $2x + 4 \leq -12$

2) $-1 + \dfrac{x}{2} < -3$
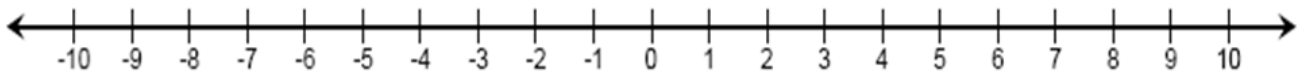
3) 14 > 3x – 4

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

4) -8 ≤ -2.5x – 28

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

5) -7 > -3x + 14

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

6) 1.5x + 6 < -7.5

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10