

Name: _____ Period: _____ Date: _____

ALGEBRA 1, STANDARD 3: ABSOLUTE VALUE INEQUALITIES! HOW FUN!

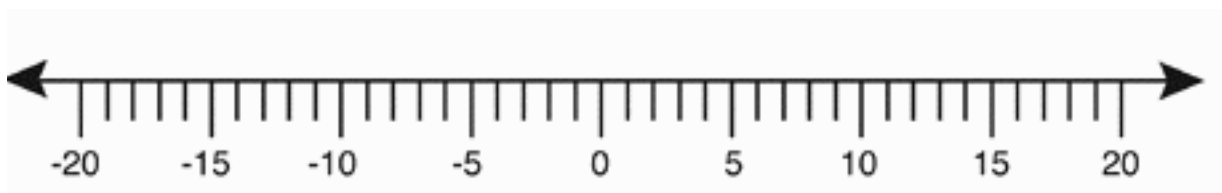
Your mom is having a potluck party. She needs to make sure her crock-pot is heated within a certain range of temperatures. She uses this inequality to figure out how hot the pot needs to be. Let t represent the temperature of the crock-pot, in degrees Celsius.

$$7|5t - 10| - 2 \leq 278$$

1. Simplify the inequality as much as possible, without removing the absolute value sign.



2. Rewrite the simplified inequality as two inequalities without absolute value signs.
3. Find the solution set of the inequality. Show all your work, and graph your solution set on the number line.



A certain element, when in a solid state, needs to be within a certain temperature range. The following inequality shows the temperature range for which the element would be in the solid state.

$$6|2t - 11| - 5 \leq 13$$



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