Possible Solutions

$9\frac{1}{2} > x + 6$

Is 3.5 a possible solution to this inequality? Why or why not? Justify your thinking.

- When students are given an inequality, they will substitute the value into the inequality like so:

$$9\frac{1}{2} > \underline{\mathbf{3.5}} + 6$$

- Next, students will solve to see if this is true, and if it meets the requirements of the inequality.

$$6 + 3.5 < 9.5 \text{ ????}$$

- Then, they will ask themselves if this can work based on the inequality.
- In this case, the answer is NO, this is not a solution to this inequality, because the result needs to be LESS THAN $9\frac{1}{2}$.