

NAME: \_\_\_\_\_

*P.I. A.A.24: Solve linear inequalities in one variable*

1. Write two equivalent inequalities. Explain why they are equivalent.
2. Tell what you must do to the first inequality in order to get the second.  
 $58 \leq -7 + w$ ;  $65 \leq w$
3. State the two words that can join the inequalities in a compound inequality. Explain what each word means in relationship to the solution.



[1] Answers may vary. Sample:  $y + 1 < 4$  and  $y < 3$ ; They have the same solution set.

[2] add 7 to each side

“and” and “or”; The word “and” means the solution is any number that makes both inequalities true. The

[3] word “or” means that solution is any number that makes either inequality true.

[4] Answers may vary. Samples:  $-2x + 6 \leq 8$ ,  $x \geq -1$ ;  $-2x + 6 > 10$ ,  $x < -2$

[5] Answers may vary. Sample: The van can seat at most 12 people;  $p$  = number of people,  $p \leq 12$

[6] Answers may vary. Sample: The temperature today varied between  $-3^{\circ}\text{F}$  and  $5^{\circ}\text{F}$ .