Name _____ Date _____ Pd _____

2.8 Solving Linear Inequalities CYU DAY TWO

☑ *Use when you get it right all by yourself*

S *Use when you did it all by yourself, but made a silly mistake*

H *Use when you could do it alone with a little help from teacher or peer*

G *Use when you completed the problem in a group*

X *Use when a question was attempted but wrong (get help)*

N *Use when a question was not even attempted*

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Solving Inequalities	1 – 10	11 – 16, 25 – 32	17 – 20, 33, 34
Graphing on a number line	1 – 10, 21 - 24	11 – 16, 25 – 32	17 – 20
Writing inequality solutions in interval notation	1 – 10, 21 - 24	11 – 16, 25 - 32	17 – 20, 33, 34
Translating words to inequalities			33, 34

Solve the following inequalities. Graph each solution set and write it in interval notation.

1. $-2x \leq -40$
2. $-7x > 21$
3. $-9 + x > 7$
4. $y - 4 \leq 1$
5. $3x - 7 < 6x + 2$
6. $2x - 1 \geq 4x - 5$
7. $5x - 7x \geq x + 2$
8. $4 - x < 8x + 2x$
9. $\frac{3}{4}x > 2$
10. $\frac{5}{6}x \geq -8$
11. $3(x - 5) < 2(2x - 1)$
12. $5(x + 4) < 4(2x + 3)$
13. $4(2x + 1) < 4$
14. $6(2 - x) \geq 12$
15. $-5x + 4 \geq -4(x - 1)$
16. $-6x + 2 < -3(x + 4)$
17. $-2(x - 4) - 3x < -(4x + 1) + 2x$
18. $-5(1 - x) + x \leq -(6 - 2x) + 6$

19. $\frac{1}{4}(x+4) < \frac{1}{5}(2x+3)$

20. $\frac{1}{3}(3x-1) < \frac{1}{2}(x+4)$

Graph each inequality. Then write the solutions in interval notation.

21. $-1 < x < 3$

22. $2 \leq y \leq 3$

23. $0 \leq y < 2$

24. $-1 \leq x \leq 4$

Solve each inequality. Graph the solution set and write it in interval notation.

25. $-3 < 3x < 6$

26. $-5 < 2x < -2$

27. $2 \leq 3x - 10 \leq 5$

28. $4 \leq 5x - 6 \leq 19$

29. $-4 < 2(x-3) \leq 4$

30. $0 < 4(x+5) < 7$

31. $1 < 4 + 2x \leq 8$

32. $-5 \leq 2(x+4) < 8$

Solve the following. Show the set up and your solution to earn full credit.

33. Six more than twice a number is greater than negative fourteen. Find all numbers that makes this statement true.

34. One more than five times a number is less than or equal to ten. Find all such numbers.

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.