2.8 Solving Linear Inequalities CYU DAY ONE

☑ Use when you get it right all by yourself

 $oldsymbol{\mathcal{S}}$ Use when you did it all by yourself, but made a silly mistake

HUse 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)

NUse when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Graphing inequalities	1 - 10	11 - 20	21 - 28
Interval notation	1 - 10	11 - 20	21 - 28
Solving Inequalities	11 - 16	17 - 20	21 - 28

Graph each set of numbers given in interval notation. Then write an inequality statement in x describing the numbers graphed.

1. (2, ∞)

3. (-∞, -5)

2. (-3,∞)

4. (-∞,4]

Graph each inequality on a number line. Then write the solutions in interval notation.

5. x <u><</u> - 1

8. $z < -\frac{2}{3}$

6. y < 0

9. $y \ge 5$

7. $x < \frac{1}{2}$

10. x > 3

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

11. 2x < - 6

13. $x - 2 \ge -7$

12. 3x > -9

14. x + 4 < 1

15.
$$-8x \le 16$$

23.
$$-6x + 2 \ge 2(5 - x)$$

$$16. - 5x < 20$$

$$24. - 7x + 4 > 3(4 - x)$$

17.
$$3x - 5 > 2x - 8$$

25.
$$4(3x-1) < 5(2x-4)$$

18.
$$3 - 7x \ge 10 - 8x$$

26.
$$3(5x-4) \le 4(3x-2)$$

19.
$$4x - 1 \le 5x - 2x$$

20.
$$7x + 3 < 9x - 3x$$

27.
$$3(x + 2) - 6 > -2(x - 3) + 14$$

21.
$$x - 7 < 3(x + 1)$$

28.
$$7(x-2) + x \le -4(5-x) - 12$$

22.
$$3x + 9 \le 5(x - 1)$$

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.

