

Name: _____ Date: _____ Pd: _____ E# _____

Study Guide-Unit 3: One-Step Equations and Inequalities

CALCULATOR INACTIVE

Determine if each statement applies to Expressions, Equations, or Inequality.

- | | |
|--------------------------------------|----------------------|
| 1. A mathematical phrase | 2. Has one solution |
| 3. May contain numbers or variables. | 4. $18 + 6 - 2$ |
| 5. $13 + 2x < 15$ | 6. Has an equal sign |

For problems 7-9, determine which value(s) from the set provide solution(s) to the equation or inequality. Write the value(s) that provide solution(s) in the answer column.

7. $15 + 8x + 7x - 8 = 112$	{5, 6, 7}
8. $h - 18 \leq 4$	{19, 22, 25}
9. $18 < \frac{3y}{2}$	{10, 12, 15}

Graph each inequality on the number line.

10. $a > 9$



11. $0 \leq b$



12. $c \geq -2$



13. $d < 15$



14. $21 < e$



Rewrite each sentence in mathematical form as an equation or inequality. Then solve.

15. The product of 8 and w is less than or equal to 64.

16. The sum of 8 and x is 10.

17. m plus 7 is at least 250.

18. 8 less than k is the same as $10 + 19$.

19. The total amount of cookies divided by 12 people must be at least 3.
How many cookies do you need?

20. Anna makes \$6 per hour babysitting. She made less than \$60.
How many hours did Anna babysit?

Write each sentence in mathematical form as an equation or inequality. Then solve.

21. Tim is three inches taller than Emily. Emily is 60 inches tall.
How tall is Tim?

22. Mandy has four dollars less than Mindy. Mindy has eight dollars. How many dollars does Mandy have?

23. Julio is at least twice as heavy as Julian. If Julio weighs

15. equ/ineq: _____

solution: _____

16. equ/ineq: _____

solution: _____

17. equ/ineq: _____

solution: _____

18. equ/ineq: _____

solution: _____

19. variable: _____

equ/ineq: _____

solution: _____

20. variable: _____

equ/ineq: _____

solution: _____

21. variable: _____

equ/ineq: _____

solution: _____

22. variable: _____

equ/ineq: _____

solution: _____

23. variable: _____






equ/ineq: _____

solution: _____

Solve each equation. SHOW ALL YOUR STEPS!

Solve	Check	Solve	Check
24. $94 + f = 213$		25. $g - 103 = 172$	
26. $13h = 143$		27. $\frac{129}{j} = 3$	
28. $\frac{k}{18} = 6$		29. $9h = 135$	

Solve, check, and graph. SHOW GRAPHS IN ANSWER COLUMN!!

Solve	Graph	Solve	Graph
30. $u - 23 \geq 104$		31. $\frac{84}{p} > 6$	
32. $w + 37 < 86$		33. $4x \leq 76$	
34. $\frac{y}{8} > 36$		35. $7z \leq 126$	