NAME _____ DATE _____ PERIOD _____

5-5 Practice

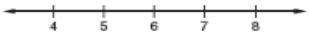
Solving Multi-Step Equations and Inequalities

Solve each equation. Check your solution.

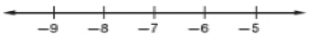
1. $4(j - 7) = 12$
2. $5(2k + 10) = 40$
3. $7(2p + 3) - 8 = 6p + 29$
4. $7(g - 4) = 3$
5. $3(4c + 5) = 24$
6. $2(a - 1) = 3(a + 1)$
7. $3(x - 3) = 5(1.5 + x)$
8. $2(1.5m + 3) = 3.5m - 1$
9. $a - \frac{5}{10} = 2a - \frac{3}{5}$
10. $2.2x - 5 = 2(1.4x + 3)$
11. $\frac{d}{0.2} = 3d + 2.1$
12. $5n + 3 = 2(n + 2) - 3n$
13. $\frac{2}{3}a + 2 = \frac{1}{3}(4a + 1)$
14. $y - 7 = \frac{1}{4}(y + 2)$

Solve each inequality. Graph the solution on a number line.

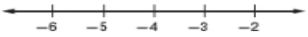
15. $\frac{2}{3}(12 - x) > 4$



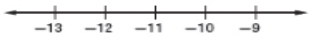
16. $\frac{1}{2}(8 - c) < 7.5$



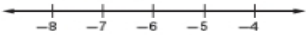
17. $\frac{c}{3} + 7 > 5\frac{1}{2}$



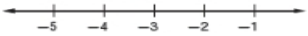
18. $7 + 2p < -14$



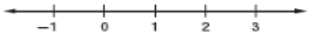
19. $-3(x + 3) > 7.5$



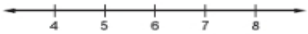
20. $5 - 3c \leq c + 17$



21. $2(n - 5) \leq -7$



22. $\frac{18 - n}{2} \leq 6$



23. **GEOMETRY** The perimeter of a rectangle is 80 feet. Find the dimensions if the length is 5 feet longer than four times the width. Then find the area of the rectangle.

24. **NUMBER THEORY** Five times the sum of three consecutive integers is 150. What are the integers?

25. **STATE FAIR** Admission to the state fair costs \$5 and each ride costs \$0.75. If Ahmed wants to spend no more than \$14 at the fair, how many rides can he ride?