Name _____ Per ADN. Date _____

Inequalities Quiz Review

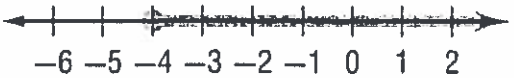
***Graph** the following inequalities.*

1. $x < 4$

2. $7 \le n \rightarrow n \ge 7$

*Write the **algebraic inequality** for each of the graphs provided.*

3.

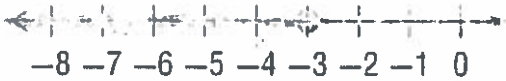


$x \ge -4$

4.

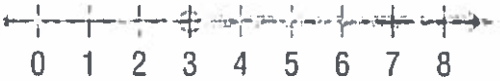
$x \le 7$

5.



$x \le -3$

6.



$x > 3$

***Solve** each inequality. **Show your work!** For #13-15, also **graph** the solution set on the number line. **Circle/Box** your final answer.*

7. $m + 2 \ge 6$

$-2 \quad -2$

$\boxed{m \ge 4}$

8. $12 \le t - 9$

$+9 \quad +9$

$21 \le t \rightarrow \boxed{t \ge 21}$

9. $4 < \frac{c}{5} \cdot 5$

$5 \cdot$

$20 < c \rightarrow \boxed{c > 20}$

10. $-8x > 24$

11. $\frac{w}{6} > -3 \cdot 6$

$6 \cdot$

$\boxed{w > -18}$

12. $4a - 7 > 14$

$+7 \quad +7$

$\frac{4a}{4} > \frac{16}{4}$

$\boxed{a > 4}$

13. $5x + 11 \le 2x - 10$

$-2x \quad -2x$

$3x + 11 \le -10$

$-11 \quad -11$

$\frac{3x}{3} \le \frac{-21}{3}$

$\boxed{x \le -7}$

14. $\frac{d}{4} + 1 \ge -3$

$-1 \quad -1$

$4 \cdot \frac{d}{4} \ge -4 \cdot 4$

$\boxed{d \ge -16}$

15. $-2(4b + 1) < 70$

$-8b - 2 < 70$

$+2 \quad +2$

$\frac{-8b}{-8} < \frac{72}{-8}$

$\boxed{b > -9}$