Algebra 1B Review Ch. 5

Test is Wed. (MCT 5.1-5.4)

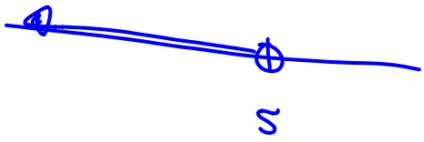
Quiz today 5.3-5.4

Example 1

Solve $x - 9 < -4$. Then graph it on a number line.

$+9 \quad +9$

$x < 5$



Example 2

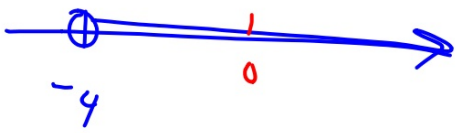
$-14 \cdot 0 < 56$

$0 < 56$

Solve $-14h < 56$. Check your solution.

$\frac{-14h}{-14} < \frac{56}{-14}$

$h > -4$



Example 3

Solve $-6y - 13 > 29$. Check your solution.

$+13 \quad +13$

$\frac{-6y}{-6} > \frac{42}{-6}$

$y < -7$

Whiteboards

29. Four times a number decreased by 6 is less than −2. Define a variable, write an inequality, and solve for the number.

n = a number

$$4n - 6 < -2$$
$$+6 \quad +6$$
$$\frac{4n}{4} < \frac{4}{4}$$
$$n < 1$$

12. $5b - 1 \geq -11$

13 $21 > 15 + 2a$

$-15 \quad -15$

$\frac{6}{2} > \frac{2a}{2}$

$3 > a$

$a < 3$

16. $-a + 6 \leq 5$

17. $37 < 7 - 10w$

Define a variable, write an inequality, and solve each problem. Check y

22. Three fourths of a number decreased by nine is at least forty-two.

$$\frac{3}{4} \cdot n - 9 \geq 42$$
$$+9 \qquad +9$$

$$\frac{4}{3} \cdot \frac{3}{4} n \geq 51 \cdot \frac{4}{3}$$

$$n \geq 68$$

23. Two thirds of a number added to six is at least twenty-two.

26. Ten is no more than 4 times the sum of twice a number and three.

CCSS **STRUCTURE** **Solve each inequality. Graph the solution on a number line.**

29. $-3(7n + 3) < 6n$

30. $21 \geq 3(a - 7) + 9$

$2n + 5 < 3n \leq 8n - 4$

$2n + 5 < 3n$

$-2n \quad -2n$

$5 < n$

$n > 5$

$3n \leq 8n - 4$

$-8n \quad -8n$

$-5n \leq -4$

$\frac{-5n}{-5} \leq \frac{-4}{-5}$

$n \geq \frac{4}{5}$

$5n + 6 < 18$ or $2n - 1 > 27$

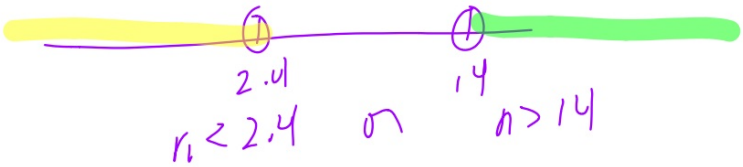
$-6 \quad -6$ $\quad +1 \quad +1$

$\frac{5n}{5} < \frac{12}{5}$

$n < 2.4$

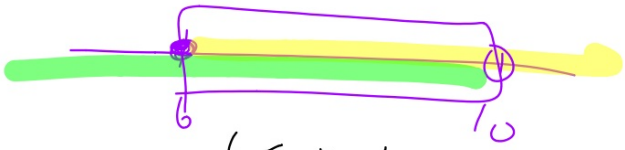
$\frac{2n}{2} > \frac{28}{2}$

$n > 14$



$n < 2.4$ or $n > 14$

$n \geq 6$ and $n < 10$



$6 \leq n < 10$