Today's Plan:

Learning Target (standard): I will review solving equations & inequalities and writing solutions in set and interval notation.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, and complete practice problems.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of practice problems.

Assessment: Board work, homework check and homework assignment

Differentiation: Students will work at the board, go over and correct homework at their seats, and actively engage in review problems.

CP Algebra II ~ Unit 1 Review #1-14

1) $k = 0$

2) $x = 5$

3) $k = -2$

4) $b = \dfrac{31}{4}$

5) $n = -\dfrac{25}{7}, \dfrac{17}{7}$

6) $x = -2, 8$

7) $x = -\dfrac{y}{3z}$

8) $x = \dfrac{u}{8} - \dfrac{3y}{8} - \dfrac{3}{2}$

9) $a = -\dfrac{bz}{6} + 1$

10) $x = \dfrac{g}{32} + \dfrac{y}{32}$

11) $\mathbb{Z}$ (integer)

$\mathbb{Q}$ (rational)

$\mathbb{R}$ (real)

12) irrational

$\mathbb{R}$ (real)

13) $\mathbb{Q}$ (rational)

$\mathbb{R}$ (real)

14) whole

$\mathbb{Z}$ (integer)

$\mathbb{Q}$ (rational)

$\mathbb{R}$ (real)

4) $-\frac{7}{5}\left(b+\frac{5}{3}\right) = \frac{4}{3}b - \frac{1411}{60}$

$60\left[-\frac{7}{5}b - \frac{7}{3} = \frac{4}{3}b - \frac{1411}{60}\right]$

$-84b - 140 = 80b - 1411$

$-164b - 140 = -1411$

$\dfrac{-164b}{-164} = \dfrac{-1271}{-164} \div 41$

$b = \dfrac{31}{4}$

Name the set(s), in order, that the number belongs to using words and symbols.

$^{19}/_6$ rational $\mathbb{Q}$
            real $\mathbb{R}$

Name the set(s), in order, that the number belongs to using words and symbols.

$$\sqrt{0}$$

whole

integer $(\mathbb{Z})$

rational $(\mathbb{Q})$

real $(\mathbb{R})$

Solve the inequality. Write the solution using set and interval notation.

$$8(8x - 2) \geq -208$$

$$64x - 16 \geq -208$$

$$64x \geq -192$$

$$x \geq -3$$

$$\{x \mid x \geq -3\}$$

$$[-3, \infty)$$

Solve the inequality. Write the solution using set and interval notation.

$$4 - 8(1 + 3x) \geq 164$$

$4 - 8 - 24x \geq 164$

$-4 - 24x \geq 164$

$-24x \geq 168$

$x \leq -7$

$\{x \mid x \leq -7\}$

$(-\infty, -7]$

Solve the inequality. Write the solution using set and interval notation.

$$-3(r + 2) \leq -5(r - 4) + 6$$

$-3r - 6 \leq -5r + 20 + 6$

$-3r - 6 \leq -5r + 26$

$2r \leq 32$

$r \leq 16$

$\{r \mid r \leq 16\}$

$(-\infty, 16]$

Solve the inequality. Write the solution using ⟨set⟩ and interval notation.

$$-6(1+8k) \le 3(k-3)+3$$

$-6-48k \le 3k-9+3$

$-6-48k \le 3k-6$

$-51k \le 0$

$k \ge 0$

$\{k \mid k \ge 0\}$

$[0, \infty)$

Solve the inequality. Write the solution using set and interval notation.

$$8x-10 \le 6x+10 < 10x-10$$

$8x-10 \le 6x+10$ $6x+10 < 10x-10$

$-20 \le -2x$ $-4x < -20$

$10 \ge x$ $x > 5$
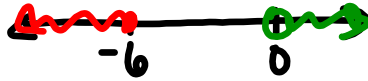
$10 \ge x > 5$

$\{x \mid 5 < x \le 10\}$

$(5, 10]$

Solve the inequality. Write the solution using set and interval notation.

$$7 - 8n \leq 1 - 9n \qquad \text{or} \qquad 5n + 8 > 8 - 9n$$

$7 + n \leq 1$

$n \leq -6$

$14n > 0$

$n > 0$

$\{n \mid n \leq -6, n > 0\}$

$(-\infty, -6] \cup (0, \infty)$

Assignment:

CP Algebra II ~ Unit 1 Review

#15-26

* Unit 1 TEST tomorrow! *