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 #15-26 * Unit 1 TEST today! *

15) $\{b \mid b > -5\}; (-5, \infty)$

16) $\{p \mid p < -4\}; (-\infty, -4)$

17) $\{x \mid x < -8\}; (-\infty, -8)$

18) $\mathbb{R}$

19) $\{r \mid -6 \le r < -2\}; [-6, -2)$

20) $\{b \mid b \le -9, b > 0\}; (-\infty, -9] \cup (0, \infty)$

21) $\{n \mid -6 \le n < -1\}; [-6, -1)$

22) $\{r \mid -5 < r \le 0\}; (-5, 0]$

23) $\{b \mid -5 \le n \le 19\}; [-5, 19]$

24) $\left\{a \mid a \le -\frac{3}{2}, a \ge \frac{27}{10}\right\}; (-\infty, -\frac{3}{2}] \cup [\frac{27}{10}, \infty)$

25) $\left\{x \mid x \le -6, x \ge \frac{28}{5}\right\}; (-\infty, -6] \cup [\frac{28}{5}, \infty)$

26) $\left\{n \mid -\frac{15}{4} < n < \frac{13}{4}\right\}; \left(-\frac{15}{4}, \frac{13}{4}\right)$

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

$\sqrt{35}$ irrational
real $\mathbb{R}$

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

$\sqrt{64} = 8$ natural $\mathbb{N}$
whole
integers $\mathbb{Z}$
rational $\mathbb{Q}$
real $\mathbb{R}$

Solve.

$$-\frac{15}{4}\left(-\frac{1}{4}x+1\right)+\frac{3}{2}x=\frac{15}{8}+\frac{7}{8}x$$

$16\left[\frac{15}{16}x-\frac{15}{4}+\frac{3}{2}x=\frac{15}{8}+\frac{7}{8}x\right]$

$15x-60+24x=30+14x$

$39x-60=30+14x$

$25x=90$

$x=\frac{18}{5}$

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

$$4p-6\le -8p+6<8-7p$$

$4p-6\le -8p+6$ $\quad -8p+6<8-7p$

$-12\le -12p$ $\quad -p<2$

$1\ge p$ $\quad p>-2$

$1\ge p>-2$

$\{p\mid -2<p\le 1\}$

$(-2,1]$

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

$$8v-7<9v+5<v-3$$

$8v-7<9v+5$ $\quad$ $9v+5<v-3$

$-12<v$ $\quad$ $8v<-8$

$v<-1$

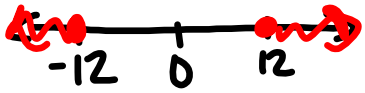
$\{v \mid -12<v<-1\}$

$(-12,-1)$

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

$$|2+10k| \geq 12$$

distance



$2+10K \leq -12$ $\quad$ $2+10K \geq 12$

$10K \leq -14$ $\quad$ $10K \geq 10$

$K \leq -\frac{7}{5}$ $\quad$ $K \geq 1$

$\{k \mid K \leq -\frac{7}{5}, K \geq 1\}$

$(-\infty, -\frac{7}{5}] \cup [1, \infty)$

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

$|1-4n| < 27$ ← distance

$-27 < 1-4n < 27$

$-27 < 1-4n$ and $1-4n < 27$

$-28 < -4n$ $\quad -4n < 26$

$7 > n$ $\quad n > -\frac{13}{2}$

$\{n \mid -\frac{13}{2} < n < 7\}$

$(-\frac{13}{2}, 7)$

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

$|-7-9n| \leq 97$ ← distance

$-97 \leq -7-9n \leq 97$

$-97 \leq -7-9n$ and $-7-9n \leq 97$

$-90 \leq -9n$ $\quad -9n \leq 104$

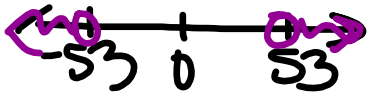
$10 \geq n$ $\quad n \geq -\frac{104}{9}$

$\{n \mid -\frac{104}{9} \leq n \leq 10\}$

$[-\frac{104}{9}, 10]$

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

$|-8-5x| > 53$ distance



$-8-5x<-53$ $\quad$ $-8-5x>53$

$-5x<-45$ $\quad$ $-5x>61$

$x>9$ $\quad$ $x<-\frac{61}{5}$

$\{x \mid x<-\frac{61}{5}, x>9\}$

$(-\infty, -\frac{61}{5}) \cup (9, \infty)$

Assignment:

CP Algebra II ~ Unit 1 Review 2

#1-16

* Unit 1 TEST tomorrow! *