

Today's Plan:

Learning Target (standard): I will review for the semester exam.

Students will: Complete practice problems over previous concepts at the boards and study for my exam.

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

Assessment: Board work

Differentiation: Students will work at the board, actively engage in practice review concepts with the aid of other students and the teacher.

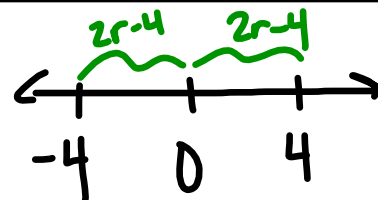
Solve.

$$4|2r - 4| - 4 = 12$$

$$4|2r - 4| = 16$$

$$|2r - 4| = 4$$

distance



$$2r - 4 = -4$$

$$2r = 0$$

$$r = 0$$

$$2r - 4 = 4$$

$$2r = 8$$

$$r = 4$$

$$r = 0, 4$$

Solve.

$$|7 + 8n| + 9 \geq 64$$

$$|7 + 8n| \geq 55$$

$$7 + 8n \leq -55$$

$$7 + 8n \geq 55$$

$$8n \leq -62$$

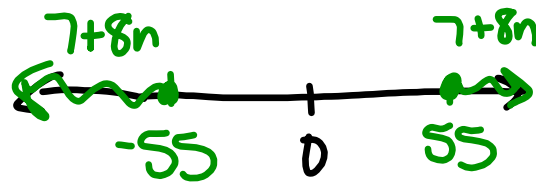
$$8n \geq 48$$

$$n \leq -\frac{31}{4}$$

$$n \geq 6$$

$$\{n \mid n \leq -\frac{31}{4}, n \geq 6\}$$

$$(-\infty, -\frac{31}{4}] \cup [6, \infty)$$



Solve.

$$|-v + 8| + 9 \leq 17$$

$$|-v + 8| \leq 8$$

$$-8 \leq -v + 8 \leq 8$$

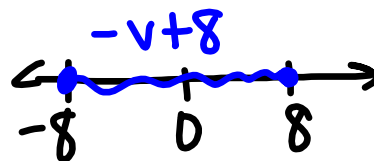
$$-16 \leq -v \leq 0$$

$$16 \geq v \geq 0$$

$$0 \leq v \leq 16$$

$$\{v \mid 0 \leq v \leq 16\}$$

$$[0, 16]$$



Simplify.

$$\frac{1}{2} \left(\frac{4}{3}a + \frac{10}{9} \right) + 2 \left(\frac{49}{9}a + 1 \right)$$

$$\frac{2}{3}a + \frac{5}{9} + \frac{98}{9}a + 2$$

$$\frac{6}{9}a + \frac{5}{9} + \frac{98}{9}a + \frac{18}{9}$$

$$\frac{104}{9}a + \frac{23}{9}$$

Simplify.

$$\begin{aligned} \frac{3i}{9-2i} \cdot \frac{9+2i}{9+2i} &= \frac{3i(9+2i)}{(9-2i)(9+2i)} \\ &= \frac{27i + 6i^2}{81 - 4i^2} \quad \boxed{i^2 = -1} \\ &= \frac{27i - 6}{81 + 4} \\ &= \frac{-6 + 27i}{85} \\ &= -\frac{6}{85} + \frac{27}{85}i \end{aligned}$$

Simplify.

$$\begin{aligned} \frac{8}{-10+3i} \cdot \frac{-10-3i}{-10-3i} &= \frac{8(-10-3i)}{\underline{(-10+3i)}\underline{(-10-3i)}} \\ &= \frac{-80-24i}{100-9\underbrace{i^2}_{=-1}} \\ &= \frac{-80-24i}{100+9} \\ &= -\frac{80}{109} - \frac{24}{109}i \end{aligned}$$

$$2) -\frac{7}{4} - 5\left(\frac{7}{2}n - \frac{4}{3}\right) = \frac{397}{6}$$

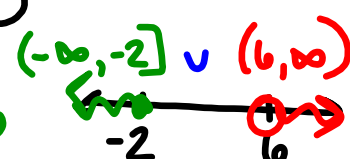
$$12 \left[-\frac{7}{4} - \frac{35}{2}n + \frac{20}{3} = \frac{397}{6} \right]$$

$$-21 - 210n + 80 = 794$$

$$-210n + 59 = 794$$

$$-210n = 735$$

$$n = -\frac{7}{2}$$

$$7) -2x + 1 < -11 \text{ (or)} -7 + 8x \leq -23$$
$$\begin{array}{ll} -2x < -12 & 8x \leq -16 \\ x > 6 & x \leq -2 \end{array}$$


$$\{x \mid x \leq -2, x > 6\}$$

$$(-\infty, -2] \cup (6, \infty)$$