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 accuarcy 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.

Simplify.

$$(5-8i)(8+i)$$

$$= 40+5i-64i-8i^2 \quad i^2=-1$$

$$=40-59i+8$$

$$=48-59i$$

Simplify.

$$-3(6-4i)+7(5-2i)$$

$= -18+12i+35-14i$

$= 17-2i$

Simplify.

$$(-6-3i)+(-6+6i)$$

$= -12+3i$

Simplify.

synthetic ÷ (x ± c)

$$\left(9p^3+36p^2-3\right)\div\left(p+4\right)$$

$$\begin{array}{r|cccc} -4 & 9 & 36 & 0 & -3 \\ & \downarrow & -36 & 0 & 0 \\ \hline & 9 & 0 & 0 & \boxed{-3} \end{array}$$

remainder

Miss exponent

$$9p^2+0p+0+\frac{-3}{p+4}$$

$$9p^2-\frac{3}{p+4}$$

Simplify.

long ÷

$$\left(5m^3+33m^2+8m-7\right)\div\left(5m+3\right)$$

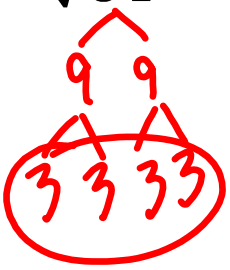
$$\begin{array}{r} m^2+6m-2 \\ 5m+3\overline{)\,5m^3+33m^2+8m-7} \\ -5m^3\mp 3m^2 \\ \hline 30m^2+8m-7 \\ -30m^2\mp 18m \\ \hline -10m-7 \\ +10m+6 \\ \hline -1 \end{array}$$

remainder

$$m^2+6m-2-\frac{1}{5m+3}$$

Simplify.

$$\frac{3\sqrt[4]{4}}{\sqrt[4]{81}} = \frac{3\sqrt[4]{4}}{3} = \sqrt[4]{4}$$

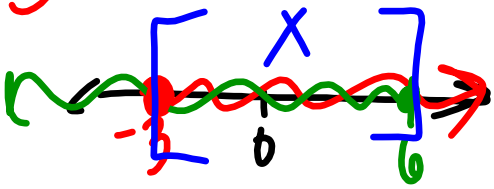


Solve. Write solution as a set and interval.

$$1 - 4x \le 13 \text{ and } -4x + 4 \ge -20$$

$-4x \le 12$ "overlap" $-4x \ge -24$

$x \ge -3$ $x \le 6$



$\{x \mid -3 \le x \le 6\}$

$[-3, 6]$

Simplify.

$$\frac{5n^3+25n^2}{5n^2}\cdot\frac{14n-56}{2n^2+10n-72}$$

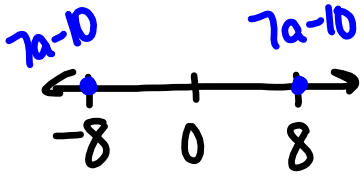
$2(n^2+5n-36)$

36: $9 \cdot -4 = 5$

$$=\frac{5n^2(n+5)}{5n^2}\cdot\frac{7\,14(n-4)}{2(n+9)(n-4)}$$

$$=\frac{7(n+5)}{n+9}$$

4) $\left[\frac{|7a-10|}{4}=2\right]^4$



distance

$|7a-10|=8$

shading

$7a-10=-8$ $\quad 7a-10=8$

$7a=2$ $\quad 7a=18$

$a=\frac{2}{7}$ $\quad a=\frac{18}{7}$

$a=\frac{2}{7},\frac{18}{7}$

55) $(16m^6)^{\frac{3}{2}}$

$6 \cdot \frac{3}{2} = 9$

$16^{\frac{3}{2}} \quad m^9$

$64m^9$

$(\#)^{\frac{m}{n}}$ ← power, ↖ root

$16^{\frac{3}{2}} = (\sqrt{16})^3$

$= 4^3$

56) $(x^{12})^{\frac{5}{3}}$

$12 \cdot \frac{5}{3} = 20$

x^{20}

$(x^4)^3 = x^{12}$