

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.

Simplify.

$$\frac{1}{3} \cdot \frac{21v - 63}{7} \cdot \frac{v^2 + 12v + 35}{24v - 72}$$
$$= \frac{\cancel{21}(v-3)}{\cancel{7}1} \cdot \frac{(v+7)(v+5)}{\cancel{24}(v-3)\cancel{8}}$$
$$= \frac{(v+7)(v+5)}{8}$$

Simplify.

$$(6r^3 - 2r^4 + r^2) + (6r^3 - 2r^4 - 7r^2)$$

$$\underline{6r^3} - \underline{2r^4} + \underline{r^2} + \underline{6r^3} - \underline{2r^4} - \underline{7r^2}$$

$$-4r^4 + 12r^3 - 6r^2$$

Solve. Write solution as a set and interval.

$$2 > 2 + 5a > -28$$

$$2 > 2 + 5a \quad 2 + 5a > -28$$

$$0 > 5a \quad 5a > -30$$

$$0 > a \quad a > -6$$

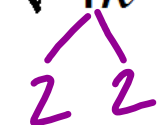
$$0 > a > -6$$

$$-6 < a < 0$$

$$\{ a \mid -6 < a < 0 \}$$

$$(-6, 0)$$

Simplify.

$$\sqrt[3]{4k^2} = \sqrt[3]{4k^2}$$


Solve.

$$7m^2 + 40m = 35 - 4m$$

$$7m^2 + 44m - 35 = 0$$

$$(7m - 5)(m + 7) = 0$$

$$7m - 5 = 0 \quad m + 7 = 0$$

$$7m = 5$$

$$m = \frac{5}{7}$$

$$m = -7$$

$$m = -7, \frac{5}{7}$$

Solve.

$$10x^2 - 26x - 42 = -3x$$

$$10x^2 - 23x - 42 = 0$$

$$(5x + 6)(2x - 7) = 0$$

$$5x + 6 = 0 \quad 2x - 7 = 0$$

$$5x = -6 \quad 2x = 7$$

$$x = -\frac{6}{5} \quad x = \frac{7}{2}$$

$$x = -\frac{6}{5}, \frac{7}{2}$$

Factor.

$$\underline{2n^3 + 6n^2} - \underline{5n - 15}$$

$$2n^2(\underline{n+3}) - 5(\underline{n+3})$$

$$(\underline{n+3})(2n^2 - 5)$$

Simplify.

$$(\underline{8k} - \underline{7})(6k^2 - 3k + 5)$$

$$48k^3 - \underline{24k^2} + \underline{40k} - \underline{42k^2} + \underline{21k} - 35$$

$$48k^3 - 66k^2 + 61k - 35$$

Factor.

$$m^3 + 8n^3$$

$$(m + 2n)(m^2 - 2mn + 4n^2)$$

$$17) 2np^4 \cdot (n^2 p^2 m^{-3})^2$$

$$2np^4 \cdot n^2 p^2 m^{-6}$$

$$2m^{-6} n^3 p^6$$

$$\frac{2n^3 p^6}{m^6}$$

$$(x^2)^3 = x^6$$

$$x^2 \cdot x^2 \cdot x^2$$

$$x^2 \cdot x^3 = x^5$$

$$46) \frac{\sqrt[3]{4}}{\sqrt[3]{5}} \cdot \frac{\sqrt[3]{55}}{\sqrt[3]{5.5}} = \frac{\sqrt[3]{4 \cdot 5 \cdot 5}}{\sqrt[3]{5 \cdot 5 \cdot 5}}$$

$$= \frac{\sqrt[3]{100}}{5}$$

$$40) \left[\frac{2}{a} = \frac{1}{a^2+6a} + \frac{1}{a} \right] \frac{a(a+6)}{a(a+6)}$$

↖ common denominator

$$2(a+6) = 1 + 1(a+6)$$

$$2a+12 = 1+a+6$$

$$2a+12 = a+7$$

$$a = -5$$