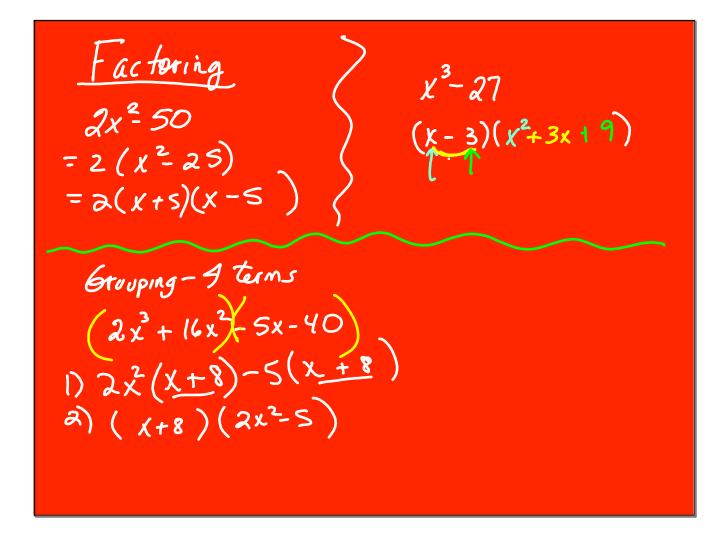
RATIONAL FUNCTIONS REVIEW

Sint (-3)
$$\# + = (2 \text{ problems})$$

factor + cancel
(1 problem) $\frac{1}{x^{2} \cdot 7x + 3} + \frac{4}{x^{2} + 4}$
1) factor denons
2) Make + Keep common denoms,
2-8) Complex fractions (1 problem) $\frac{2}{x + 3} + \frac{4}{x + 5}$
1) Make c.d. for top
1 add to make one fraction $\frac{1}{x - \frac{2}{x + 3}}$
2) Bottom fractions - Do same
3) Keep - Change flip
4) factor + cancel
Solve.
9-12) 2 problems
1) Factor denoms
2) Multiply by c.d. to cancel all
B-14) DIR [T Problems (1 problem)
15) 3 graphs



$$Simplify \frac{m^{2} + n^{2}}{m^{2} - n^{2}} + \frac{m}{n - m} + \frac{n}{m + n}$$

$$\frac{m^{2} + n^{2}}{(m + n)(m - n)} + \frac{-m(m + n)}{(m - n)(m + m)} + \frac{n(m - n)}{(m + n)(m - n)}$$

$$\frac{m^{2} + n^{2} - m^{2} - mn + mn - m^{2}}{(m + n)(m - n)}$$

$$= 0$$

