

ADDING & SUBTRACTING RATIONAL EXPRESSIONS

$$\frac{5}{5} \cdot \frac{1}{3} + \frac{11}{5} \cdot \frac{3}{3} = \frac{5}{3 \cdot 5} + \frac{33}{3 \cdot 5}$$

$$= \frac{38}{3 \cdot 5} \text{ or } \frac{38}{15}$$

$$\frac{(x+5)3}{(x+5)x} + \frac{x2}{x(x+5)} = \frac{3(x+5) + 2x}{x(x+5)}$$

$$= \frac{3x + 15 + 2x}{x(x+5)} = \frac{5x + 15}{x(x+5)}$$

$$x \neq -5 \text{ or } 0$$

$$= \frac{5(x+3)}{x(x+5)}$$

Factor denom first!

$$\frac{2}{(x^2+x-6)^+} + \frac{3}{(x^3+2x^2-3x)}$$

$$\frac{2}{x(x-2)(x+3)} + \frac{3}{x(x+3)(x-1)(x-2)}$$

$$= \frac{2x(x-1)}{x(x-1)(x-2)(x+3)} + \frac{3(x-2)}{x(x-1)(x-2)(x+3)}$$

$$= \frac{2x^2 - 2x + 3x - 6}{x(x-1)(x-2)(x+3)} = \frac{2x^2 + x - 6}{x(x-1)(x-2)(x+3)}$$

$x \neq 0, 1, 2, -3$

Check the top:

$$2x^2 + x - 6 = (2x - 3)(x + 2) \checkmark$$

$$2x^2 + 4x - 3x - 6$$

OR = $\frac{(2x-3)(x+2)}{x(x-1)(x-2)(x+3)}$ ←

Pg 336

#1, 3, 4, 5, 6, 7, 8, (10*)

yikes
(might need to
do this one
tomorrow)