

9.5 Notes—Adding & Subtracting Fractions

$$\frac{1}{3} + \frac{1}{3} =$$

$$\frac{3}{7} + \frac{2}{7} =$$

$$\frac{4}{9} - \frac{2}{9} =$$

Must have a _____ to add or subtract.

$$\frac{x^2}{5} + \frac{x^2}{5} =$$

$$\frac{x}{9} - \frac{2x}{9} =$$

$$\frac{12}{xy^3} - \frac{9}{xy^3} = \boxed{}$$

w/ Restrictions:

$$\frac{x}{x^2 - 4} + \frac{2}{x^2 - 4} = \boxed{}$$

Simplified!

w/ Restrictions:

$$\frac{2}{3} + \frac{1}{5} \quad \text{or} \quad \frac{(\quad)2}{(\quad)3} + \frac{1(\quad)}{5(\quad)} \quad \text{or} \quad \frac{\quad}{15} + \frac{\quad}{15} = \boxed{\quad}$$

$$\frac{1}{12} + \frac{3}{9} \quad \text{or} \quad \frac{(\quad)1}{(\quad)12} + \frac{3(\quad)}{9(\quad)} \quad \text{or} \quad \frac{3}{36} + \frac{12}{36} = \frac{15}{36} = \frac{5}{12}$$

- Steps:
1. Factor!
 2. "Build a LCD?" (Lowest Common Denominator)
 3. Identify Restrictions
 4. Add/Subt....simplify if needed

$$\frac{6}{5x^2y} + \frac{5}{10xy^2} = \frac{6(\quad)}{5x^2y(\quad)} + \frac{5(\quad)}{10xy^2(\quad)} = \frac{\quad}{10x^2y^2} + \frac{\quad}{10x^2y^2}$$

$$= \frac{\quad}{10x^2y^2}$$

Restrictions:

$$3 - \frac{1}{x^2+5} = \frac{3(\quad)}{1(\quad)} - \frac{1}{x^2+5} = \frac{\quad}{x^2+5} - \frac{\quad}{x^2+5} = \frac{\quad}{x^2+5}$$

No Restrictions!!!

$$x^2 + 5 \neq 0$$

$$x^2 \neq -5$$

$$x \neq \pm \sqrt{5} i$$

$$\frac{4c}{c-3} + \frac{4c}{c+3} = \frac{(\quad)4c}{(\quad)(c-3)} + \frac{4c(\quad)}{(c+3)(\quad)} =$$

Space for showing work:

Answer:

w/ Restrictions:

$$\frac{\quad}{(c-3)(c+3)}$$

Time for Board Work!

Now more video...

Be careful with Subtraction:

$$\frac{4r}{r-2} - \frac{4r}{r+2} = \frac{(\quad)4r}{(\quad)(r-2)} - \frac{4r(\quad)}{(r+2)(\quad)} =$$

Big Dog!!!

$$\frac{2x}{x^2 - 2x - 3} - \frac{3}{4x + 4}$$