**6.3 – Adding and Subtracting Rational Expressions**

Like for numerical fractions, to add or subtract fractions, they need to be on a **common denominator**…

In order to find the LEAST common denominator, we will have to **FACTOR** all the denominators to see which factors are missing in each fraction.

Examples : $A=\frac{3}{x+1}+\frac{5x}{2x-3}$

 Restrictions :

 Simplification :

 $B=\frac{x^{2}-20}{x^{2}-4}+\frac{x-2}{x+2}$

 Restrictions :

 Simplification :

**ATTENTION** : We will sometimes have to add brackets when subtracting several terms…

 Ex : $C=\frac{3}{x+5}-\frac{x-4}{x+5}$ $\left(x\ne 5\right)$

 $D=\frac{5x}{x+1}-\frac{7x+1}{x-1}$

 Restrictions :

 Simplification :

Fractions inside fractions…

 $E=\frac{1+\frac{1}{x}}{x-\frac{1}{x}}$

 Restrictions :

 Simplification :

**ATTENTION** :
We will have to present our work very clearly. The main fraction line has to be clearly positioned. ex : $\frac{2}{\frac{3}{4}}\ne \frac{\frac{2}{3}}{4}$

Your turn p 335

**Hwk : p 336 # 3, 6 – 12, 15ab, 16, 18, 19a, 20 – 23.**