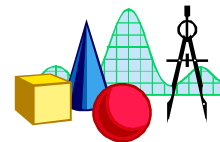




## MATH DEPT. TUTORIAL 2



### **Tutorial 2:** Fractions: addition, subtraction, multiplication and division, rational expressions, least common denominators, algebraic manipulations.

Perform the indicated operation and simplify the result.

1.  $\frac{3x-6}{5x} \cdot \frac{x^2-x-6}{x^2-4}$

2.  $\frac{6}{x^2+x} \cdot \frac{x^2-1}{4x-2}$

3.  $\frac{x}{3} + \frac{5}{3}$

4.  $\frac{x}{2x-4} - \frac{4}{x-2}$

5.  $\frac{6}{x-1} + \frac{x}{1-x}$

6.  $\frac{4}{x-1} + \frac{1}{x+2}$

7.  $\frac{x-2}{x+2} - \frac{x+2}{x-2}$

8.  $\frac{4}{x^2-4} - \frac{2}{x^2+x-6}$

9.  $\frac{x-1}{x-2} - \frac{x^2-2x+1}{x-4}$

10.  $\frac{1}{x} - \frac{2}{x^2+x} + \frac{3}{x^3+x^2}$

11.  $1 + \frac{1}{x}$

11.  $1 - \frac{1}{x}$

12.  $\frac{x^2+8x-9}{x^2+8x+10} \cdot \frac{x^2+7x+10}{x^2+7x-18} \cdot \frac{x^2+11x+18}{x^2+4x-5} - \frac{x-1}{x+5}$