

Name:

Period:

Date:

Practice Worksheet: Adding & Subtracting Rational Expressions

Simplify completely. You must show work supporting your correct answer to get credit.

Level 1	Level 2	Level 3
1] $\frac{x+9}{2x} - \frac{x+1}{2x}$	5] $\frac{5xy-6y}{6xy} + \frac{12-6x}{6x}$	9] $\frac{5x^2y+y^2}{2xy} - \frac{15x^2+5y}{10x}$
2] $\frac{7x}{3x+1} + \frac{8x+5}{3x+1}$	6] $2 + \frac{2x}{x-2}$	10] $\frac{3x}{2x-6} + \frac{9}{6-2x}$
3] $\frac{3x^2-2x+1}{x-2} - \frac{2x^2+3x-5}{x-2}$	7] $\frac{x}{x^2+x-2} - \frac{1}{x+2}$	11] $\frac{x}{x^2-5x+6} - \frac{3}{x-3}$
4] $\frac{x^2+3x-2}{(x+5)(x-2)} + \frac{4x+12}{(x+5)(x-2)}$	8] $\frac{7}{x^2-4} + \frac{2x}{x+2}$	12] $\frac{2}{x^2-4} - \frac{1}{x^2+2x}$

Level 4

$$13] \frac{3x-2}{x^2+4x-12} - \frac{5}{2x+12}$$

Level 5 (Extra Credit)

$$16] \frac{2x}{x^2+4x+4} + \frac{x-1}{x(x+2)}$$

$$14] \frac{x}{x^2+9x+20} - \frac{4}{x^2+7x+12}$$

$$17] \frac{1}{x+1} + \frac{x}{x-6} - \frac{5x-2}{x^2-5x-6}$$

$$15] \left(\frac{1}{2x-5} - \frac{7}{8x-20} \right) \div \frac{x}{2x-5}$$

$$18] \frac{\frac{3}{x-2} - \frac{6}{x^2-4}}{\frac{3}{x+2} + \frac{1}{x-2}}$$