



Name _____ Date _____ Period _____

ADDING AND SUBTRACTING RATIONAL EXPRESSIONS WORKSHEET

Addition/Subtraction of Rational Expressions w/ Unlike Denominators

- 1) Find the LCD
- 2) Multiply all terms to get like denominators
- 3) Add or Subtract as the numerators and carry the denominators
- 4) Simplify, if necessary

Add or Subtract the rational expressions:

1. $\frac{4x}{2x+3} + \frac{7}{2x+3}$

2. $\frac{5}{8a} - \frac{2}{8a}$

3. $\frac{y}{y^2-9} + \frac{5}{y^2-9}$

4. $\frac{x-1}{3x+4} + \frac{2x+9}{3x+4}$

5. $\frac{7x+4}{x^2+3x+2} - \frac{3x-2}{x^2+3x+2}$

6. $\frac{7}{x+2} - \frac{4}{x-5}$

7. $\frac{3}{y+5} + \frac{y}{y^2+7y+10}$

8. $\frac{5}{4x} + \frac{3}{2x}$

9. $\frac{2}{x-3} - \frac{1}{x+7}$

10. $\frac{3x}{x-6} + \frac{6x}{4x-24}$

$$11. \quad \frac{3}{y+3} + \frac{2y}{y^2+8x+15}$$

$$12. \quad \frac{5x}{x-7} + \frac{2x}{4x-28}$$

$$13. \quad \frac{6}{y+8} - \frac{3y}{y^2+11x+24}$$

$$14. \quad \frac{2x}{x^2+2x+1} + \frac{x^2+1}{x^2-1}$$

$$15. \quad \frac{15}{2x-4} + \frac{x}{x^2-4}$$

$$16. \quad \frac{x}{x^2-1} - \frac{2}{x^2-2x+1}$$

$$17. \quad \frac{x}{x^2-4} - \frac{2}{4-x^2} + 2$$

$$18. \quad 1 + \frac{y}{y^2-10y+24} - \frac{9}{y-3}$$