

Add & Subtract Rational Expressions

- Strategies-**
1. Find a common denominator
 2. Make equivalent fractions
 3. Add/subtract numerators
 4. Simplify

$$** \mathbf{x - y = - (y - x);}$$

$$\mathbf{5 - 4 = - (4 - 5)}$$

Find the following sums or differences

$$1. \frac{5}{x+y} + \frac{3}{x-y}$$

$$2. \frac{2a}{a-2b} + \frac{2b}{a+2b}$$

$$3. \frac{a}{a^2-b^2} + \frac{3}{a+b}$$

$$4. \frac{a}{a^2-b^2} + \frac{3}{a+b} - \frac{2}{a-b}$$

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

$$6. \frac{2x+1}{x+1} - \frac{3x}{x-2}$$

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

$$8. \frac{x+1}{x^2+5x+4} - \frac{x+2}{x^2-16}$$