

Adding and Subtracting with Common Denominators

Add or subtract, list restrictions, and then write an equivalent expression in reduced form.

1. $\frac{3}{15x} + \frac{2}{15x}$

2. $\frac{5x}{7} + \frac{2x}{7}$

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

4. $\frac{x+2}{5x+9} + \frac{4x+7}{5x+9}$

5. $\frac{5}{8a} - \frac{11}{8a}$

6. $\frac{7x-1}{x-5} - \frac{8x-6}{x-5}$

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

8. $\frac{14x-2}{6x^2+x-15} + \frac{7x+37}{6x^2+x-15}$

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

10. $\frac{1-2x}{6x-8} - \frac{5-5x}{6x-8}$

11. $\frac{12x^2}{3x^2} - \frac{18x}{3x^2}$

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

Adding and Subtracting with Uncommon Denominators

Get common denominators, add or subtract, list restrictions, and then write an equivalent rational expression in reduced form.

$$2. \frac{4}{5x} - \frac{2}{10x}$$

$$2. \frac{10}{6x} - \frac{2}{3}$$

$$3. \frac{6}{5x} - \frac{6}{3x}$$

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

$$5. \frac{4}{4x+12} + \frac{7}{x+3}$$

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

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

$$8. \frac{3}{y+5} - \frac{2y+1}{y^2+7y+10}$$

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

$$10. \frac{2}{x-6} + \frac{2x+12}{x^2-36}$$

$$11. \frac{2}{x+2} - \frac{2}{2x}$$

$$12. \frac{12}{2x+6} + \frac{4}{6x+18}$$