

HW 3.10

p. 173 2 – 20 even



Find the sum or difference.

$$2. \quad \frac{10x}{x-4} - \frac{6x}{x-4}$$

$$\frac{10x - 6x}{x - 4}$$

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

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

$$\frac{(x-5) - (x+6)}{x+2}$$

$$\frac{x-5-x-6}{x+2}$$

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

$$6. \quad \frac{2x+4}{3x^2} - \frac{x-1}{3x^2}$$

$$\frac{(2x+4) - (x-1)}{3x^2}$$

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

$$\frac{x+5}{3x^2}$$



Find the LCD of the rational expressions.

8. $\frac{10}{x}, \frac{9x}{x+7}$

x : x

x + 7 : x + 7

LCD: (x)(x + 7)



Find the LCD of the rational expressions.

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

$2x - 4 : 2(x - 2)$

$x - 2 : x - 2$

LCD: $2(x - 2)$



Find the LCD of the rational expressions.

12. $\frac{3}{x^2 + 5x + 4}, \frac{4x}{x^2 + 2x + 1}$

$x^2 + 5x + 4: (x + 4) (x + 1)$

$x^2 + 2x + 1: (x + 1) (x + 1)$

LCD: $(x + 4) (x + 1) (x + 1)$

LCD: $(x + 4)(x + 1)^2$



Find the sum or difference.

$$14. \frac{8}{3x^3} - \frac{5}{12x}$$

$$\frac{8(4)}{3x^3(4)} - \frac{5(x^2)}{12x(x^2)}$$

$$\frac{32}{12x^3} - \frac{5x^2}{12x^3}$$

$$\frac{32 - 5x^2}{12x^3}$$

$$16. \frac{x}{6x-5} + \frac{1}{5x-3}$$

$$\frac{x(5x-3)}{(6x-5)(5x-3)} + \frac{1(6x-5)}{(6x-5)(5x-3)}$$

$$\frac{5x^2 - 3x + 6x - 5}{(6x-5)(5x-3)}$$

$$\frac{5x^2 + 3x - 5}{(6x-5)(5x-3)}$$



Find the sum or difference.

$$18. \frac{5}{x^2} + \frac{x+3}{x-1}$$

$$\frac{5(x-1)}{x^2(x-1)} + \frac{x^2(x+3)}{x^2(x-1)}$$

$$\frac{5x-5+x^3+3x^2}{x^2(x-1)}$$

$$\frac{x^3+3x^2+5x-5}{x^2(x-1)}$$

$$20. \frac{2x}{x^2-3x} + \frac{x+4}{x-3}$$

$$\frac{2x}{x(x-3)} + \frac{x(x+4)}{x(x-3)}$$

$$\frac{2x+x^2+4x}{x(x-3)}$$

$$\frac{x^2+6x}{x(x-3)} = \frac{x(x+6)}{x(x-3)}$$

$$= \frac{x+6}{x-3}$$

