



2. Rational functions: Adding and subtracting

1. Simplify

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

(b) $3x + 4 - \frac{2(x+3)}{5}$

2. Simplify

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

(b) $\frac{x+1}{x} + \frac{x+1}{x^2}$

3. Simplify

(a) $\frac{6}{2x+1} - \frac{2}{5x-3}$

(b) $\frac{2x+1}{x+4} - \frac{x-5}{x-2}$

4. Simplify

(a) $\frac{2x+3}{(x+1)(x+3)} + \frac{2}{x+3}$

(b) $\frac{11x+27}{2x^2+11x-6} - \frac{3}{x+6}$

5. Given that $\frac{(x+2)f(x)}{(x+3)(x^2-x-6)} \equiv 1$, find $f(x)$ in its simplest form.

6. Simplify $\frac{2}{x^3-3x^2+2x} + \frac{1}{x^3-6x^2+11x-6}$



8. Rational functions: Adding and subtracting

1. Simplify

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

(b) $3x + 4 - \frac{2(x+3)}{5} - \frac{13x+14}{5}$

2. Simplify

(a) $\frac{2}{x} + \frac{3}{4} - \frac{8+3x}{4x}$

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

3. Simplify

(a) $\frac{6}{2x+1} - \frac{2}{5x-3} - \frac{2(13x-10)}{(2x+1)(5x-3)}$

(b) $\frac{2x+1}{x+4} - \frac{x-5}{x-2} - \frac{x^2-2x+18}{(x+4)(x-2)}$

4. Simplify

(a) $\frac{2x+3}{(x+1)(x+3)} + \frac{2}{x+3} - \frac{4x+5}{(x+1)(x+3)}$

(b) $\frac{11x+27}{2x^2+11x-6} - \frac{3}{x+6} - \frac{5}{2x-1}$

5. Given that $\frac{(x+2)f(x)}{(x+3)(x^2-x-6)} \equiv 1$, find $f(x)$ in its simplest form. $(x-3)(x+3)$

6. Simplify $\frac{2}{x^3-3x^2+2x} + \frac{1}{x^3-6x^2+11x-6} - \frac{3}{x(x-1)(x-3)}$