MATH 0482

Chapter 4.6 Rational Functions: Addition and Subtraction

RATIONAL FRACTIONS: ADDITION AND SUBTRACTION

$$\frac{P}{Q} \pm \frac{R}{Q} = \frac{P \pm R}{Q}$$

SUBTRACT $\frac{4x}{x^2-64} - \frac{3x+8}{x^2-64}$.

GIVEN $f(x) = \frac{5x}{3x+1}$ AND $g(x) = \frac{2}{x+1}$, FIND $f+g$ AND STATE RESTRICTIONS.

GIVEN $f(x)=\frac{3x}{3x-1}$ AND $g(x)=\frac{4-14x}{3x^2-4x+1}$, FIND $f-g$ AND STATE DOMAIN.

SIMPLIFY AND STATE RESTRICTIONS.

$$\frac{-2x}{x+6}-\frac{3x}{6-x}-\frac{18(x-2)}{x^2-36}$$

SIMPLIFY AND STATE RESTRICTIONS.

$5a^{-2} + (2a+5)^{-1}$

SIMPLIFYING COMPLEX RATIONAL EXPRESSIONS

SIMPLIFY.

$$\frac{4 - \frac{12}{x} + \frac{9}{x^2}}{2 - \frac{5}{x} + \frac{3}{x^2}}$$

Simplify.

$$\frac{\frac{2x}{x-1}+\frac{7}{x+3}}{\frac{2x}{x-1}-\frac{5}{x-3}}$$

Simplify.

$$\frac{2y^{-1}-x^{-1}}{x^{-2}-4y^{-2}}$$

Simplify.

$$\frac{4-\frac{12}{x}+\frac{9}{x^2}}{2-\frac{5}{x}+\frac{3}{x^2}}$$