

8.2 Adding and Subtracting Rational Expressions
Honors Algebra 2

Add $\frac{4}{9} + \frac{5}{6}$

1. Add the following:

a. $\frac{3y}{2x^3} + \frac{5z}{8xy^2}$

b. $\frac{4}{5a^3b^2} + \frac{9c}{10ab}$

c. $\frac{3a^2}{16b^2} - \frac{8x}{5a^3b}$

d. $\frac{7b}{12a} - \frac{1}{18ab^3}$

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2. Add the following:

a. $\frac{5}{6x-18} + \frac{x-1}{4x^2-14x+6}$

b. $\frac{x-1}{x^2-x-6} - \frac{4}{5x+10}$

c. $\frac{x-8}{4x^2+21x+5} + \frac{6}{12x+3}$

d. $\frac{4x}{x^2+9x+18} + \frac{5}{x+6}$

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e. $\frac{8}{y-3} + \frac{2y-5}{y^2-12y+27}$

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

3. Simplify the following:

a. $\frac{1+\frac{1}{x}}{1-\frac{1}{y}}$

b. $\frac{1-\frac{y}{x}}{\frac{1}{y}+\frac{1}{x}}$

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c. $\frac{\frac{c-d}{d-c}}{d+2}$

d. $\frac{\frac{a+1}{b+1}}{1-\frac{b}{a}}$