

# Operations on Rational Expressions Worksheet

*Add 'Em Up, Rawhide!*

Perform the following operations on rational expressions.

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

6.  $\frac{2y^2+5y+2}{y^3+4} + \frac{4y+7}{y^3+4}$

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

7.  $\frac{3x^2-10}{3x+5} - \frac{2x^3+7}{3x+5}$

3.  $\frac{3x^2+7x+4}{x^2+3x+2} \div \frac{1}{2}$

8.  $\frac{2x}{x^2+5x+6} - \frac{1}{x+3}$

4.  $\frac{x^2+2xy+y^2}{x+y} \div \frac{4y+4x}{2x+2x}$

9.  $\frac{2x}{x^2-9} + \frac{1}{x+3}$

5.  $\frac{-3x^2+13x+10}{x^2+4x+3} \div \frac{5-x}{x+3}$

10.  $\frac{6}{x^2-4x-5} - \frac{5}{x^2-3x-4}$

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