

# Multiply/Divide Rational Expressions

**Directions: Multiply or Divide the rational expressions in your composition notebook. Check your solutions using the answer bank below.**

1. Add.

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

2. Add.

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

3. Subtract.

$$\frac{x+4}{2x+10} - \frac{5}{x^2 - 25}$$

4. Add.

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

5. Subtract.

$$\frac{2x^2 - 7x + 15}{2x^2 - 7x - 4} - \frac{x^2 - 4x + 19}{2x^2 - 7x - 4}$$

6. Simplify.

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

7. Subtract.

$$\frac{6x}{3x-1} - \frac{4x}{2x+5}$$

8. Subtract.

$$\frac{2x+3}{x^2 - 7x + 12} - \frac{2}{x-3}$$

9. Add.

$$\frac{x}{x-3} + \frac{5}{x^2 - 6x + 9}$$

10. Simplify.

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

## Answer Bank

$\frac{6x-7}{3x+1}$	$\frac{x^2 - 3x + 5}{(x-3)^2}$	$\frac{x^2 - x + 6}{(x-2)(x+2)}$	$\frac{x-6}{2(x-5)}$	$\frac{1}{(x+1)(x+3)}$
$\frac{28}{5x}$	$\frac{11}{(x-3)(x-4)}$	$\frac{x+1}{2x+1}$	$\frac{34x}{(2x+5)(3x-1)}$	$\frac{1}{x-1}$

Add and Subtract  
Rational Expressions

# Independent Practice

1.  $\frac{9w^3}{2w^5} + \frac{3w^3}{2w^5}$

2.  $\frac{3y^2-19y}{y^2-25} + \frac{y^2-y}{y^2-25}$

3.  $\frac{6}{v+4} + \frac{2}{v-6}$

4.  $\frac{8a-18}{3a^2+14a+8} + \frac{7}{3a+2}$

5.  $\frac{8k+9}{18} - \frac{2k+1}{18}$

6.  $\frac{x^2+5x}{x+7} - \frac{14}{x+7}$

7.  $\frac{r}{r+6} - \frac{1}{r}$

8.  $\frac{p^2+2p-51}{p^2-6p-27} - \frac{4}{p+3}$