

Partner Problems: Multiplying and Dividing Rational Expressions

Directions: Simplify each rational expression. You will do all the problems in one column and your partner will do the problems in the other column. Problems numbered the same have the same answers. **You must show all work to receive credit!**

1.	$\frac{x^2 - x - 12}{x^2 - 9x + 20}$	1.	$\frac{x^2 - 4x - 21}{x^2 - 12x + 35}$
2.	$\frac{x^2 - 9}{x^2 + 7x + 12} \div \frac{x^2 - 5x + 6}{x^2 - 8x + 12}$	2.	$\frac{x^2 - 5x - 6}{x^2 + 6x + 5} \div \frac{x^2 - x - 20}{x^2 - 25}$
3.	$\frac{x^2 + 7x - 44}{x^2 - 11x + 28} \cdot \frac{x^2 + 5x - 84}{x^2 + 10x - 24}$	3.	$\frac{x^2 - 100}{x^2 - 12x + 20} \cdot \frac{x^2 + 14x + 33}{x^2 + 13x + 30}$
4.	$\frac{x^2 - 6x - 16}{x^2 + 8x - 9} \div \frac{x^2 - 12x + 32}{x^2 + 16x + 63}$	4.	$\frac{x^2 + 5x + 6}{x^2 - 16} \div \frac{x^2 + 2x - 3}{x^2 + 11x + 28}$
5.	$\frac{x^2 + 5x}{x^2 + x - 20} \cdot \frac{x^2 - 3x - 4}{x^2 - 7x}$	5.	$\frac{x^2 + x}{x^2 + 12x} \cdot \frac{x^2 + 9x - 36}{x^2 - 10x + 21}$
6.	$\frac{x^2 + 13x + 30}{x^2 + 9x - 22} \div \frac{x^2 - 6x - 27}{x^2 + 3x - 88}$	6.	$\frac{x^2 - 14x + 48}{x^2 + 6x - 16} \div \frac{x^2 - 15x + 54}{x^2 + 18x + 80}$

Partner Problems: Multiplying and Dividing Rational Expressions

Key

Directions: Simplify each rational expression. You will do all the problems in one column and your partner will do the problems in the other column. Problems numbered the same have the same answers. **You must show all work to receive credit!**

1.	$\frac{x^2 - x - 12}{x^2 - 9x + 20}$ $\frac{x+3}{x-5}$	1.	$\frac{x^2 - 4x - 21}{x^2 - 12x + 35}$ $\frac{x+3}{x-5}$
2.	$\frac{x^2 - 9}{x^2 + 7x + 12} \div \frac{x^2 - 5x + 6}{x^2 - 8x + 12}$ $\frac{x-6}{x+4}$	2.	$\frac{x^2 - 5x - 6}{x^2 + 6x + 5} \div \frac{x^2 - x - 20}{x^2 - 25}$ $\frac{x-6}{x+4}$
3.	$\frac{x^2 + 7x - 44}{x^2 - 11x + 28} \cdot \frac{x^2 + 5x - 84}{x^2 + 10x - 24}$ $\frac{x+11}{x-2}$	3.	$\frac{x^2 - 100}{x^2 - 12x + 20} \cdot \frac{x^2 + 14x + 33}{x^2 + 13x + 30}$ $\frac{x+11}{x-2}$
4.	$\frac{x^2 - 6x - 16}{x^2 + 8x - 9} \div \frac{x^2 - 12x + 32}{x^2 + 16x + 63}$ $\frac{x^2 + 9x + 14}{x^2 - 5x + 4}$	4.	$\frac{x^2 + 5x + 6}{x^2 - 16} \div \frac{x^2 + 2x - 3}{x^2 + 11x + 28}$ $\frac{x^2 + 9x + 14}{x^2 - 5x + 4}$
5.	$\frac{x^2 + 5x}{x^2 + x - 20} \cdot \frac{x^2 - 3x - 4}{x^2 - 7x}$ $\frac{x+1}{x-7}$	5.	$\frac{x^2 + x}{x^2 + 12x} \cdot \frac{x^2 + 9x - 36}{x^2 - 10x + 21}$ $\frac{x+1}{x-7}$
6.	$\frac{x^2 + 13x + 30}{x^2 + 9x - 22} \div \frac{x^2 - 6x - 27}{x^2 + 3x - 88}$ $\frac{x^2 + 2x - 80}{x^2 - 11x + 18}$	6.	$\frac{x^2 - 14x + 48}{x^2 + 6x - 16} \div \frac{x^2 - 15x + 54}{x^2 + 18x + 80}$ $\frac{x^2 + 2x - 80}{x^2 - 11x + 18}$