

Rational Expressions Crossword

Across

Name _____

1. When simplified, identify the denominator of $\frac{x^2-x-56}{x^2+10x+21}$

2. Multiply $\frac{x^2-3x-10}{x^2-4x+4} \cdot \frac{x-2}{x+2}$

3. When simplified, identify the numerator of $\frac{x^2+2x-3}{x^2-2x-15}$

5. Simplify: $\frac{x^2-25}{(x+5)^2} \div \frac{2x-10}{4x+20}$

7. Identify the denominator when adding $\frac{2}{x-3} + \frac{1}{x+4}$

9. Identify the numerator when multiplying $\frac{x^2-11x+24}{x^2-18x+80} \cdot \frac{x^2-15x+50}{x^2-9x+20}$

12. What is the common denominator when adding $\frac{4}{x-3} + \frac{9}{x+5}$?

13. Simplify: $\frac{x^2-25}{x^2+11x+30} \div \frac{x^2-8x+15}{x^2+3x-18}$

Down

1. What factors cancel out when multiplying: $\frac{x^2-16}{x^2+4x+3} \cdot \frac{3x+9}{x^2-2x-8}$?

2. Identify the numerator when multiplying $\frac{2x^2-x-3}{x^2+x} \cdot \frac{x+1}{2x-3}$

4. When multiplied, identify the denominator of $\frac{x^2-3x}{x^2-25} \cdot \frac{x^2+4x-5}{x^2-4x+3}$

6. Identify the denominator when dividing: $\frac{x^2}{x^2-9} \div \frac{x+2}{x+3}$

7. Identify the numerator when adding $\frac{x^2}{x^2-x-20} + \frac{2}{x+4}$

Hint: When entering your answer in the puzzle, enter the binomial that is inside of any parenthesis. Example: If the problem simplifies to $(x+5)$, enter as $x+5$.

10. When dividing, identify the denominator $\frac{x^2+2x-8}{x^2+4x+3} \div \frac{x-2}{3x+3}$

11. What factors cancel out when multiplying: $\frac{3x+6}{7x-7} \cdot \frac{14x-14}{5x+10}$

