Lesson 12.3 Practice: Multiplying and Dividing Rational Expressions

School Launch · Algebra I · Unit 12: Rational Expressions: An Introduction · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Simplify: $\frac{x+5}{x^2+5x-6} \cdot \frac{x^2+9x+18}{2x+10}$. EASY

2. Simplify: $\frac{x+2}{x^2-2x-3} \cdot \frac{x^2-x-2}{3x+6}$. EASY

3. Simplify: $\frac{x+2}{x^2+9x+18} \cdot \frac{x^2-36}{3x+6}$. EASY

4. Simplify: $\frac{x+3}{x^2+3x-4} \cdot \frac{x^2+3x-4}{3x+9}$. MEDIUM

5. Simplify: $\frac{x-2}{x^2-4x-5} \cdot \frac{x^2+6x+5}{3x-6}$. MEDIUM

6. Simplify: $\frac{x+1}{x^2-4x+3} \cdot \frac{x^2+x-2}{2x+2}$. MEDIUM

7. Simplify: $\frac{x-3}{x^2-x-30} \cdot \frac{x^2+4x-5}{2x-6}$. MEDIUM

8. Simplify: $\frac{x+3}{x^2-1} \div \frac{3x+9}{x^2-2x+1}$. HARD

9. Simplify: $\frac{x-1}{x^2+4x-12} \div \frac{2x-2}{x^2+2x-24}$. HARD

10. Simplify: $\frac{x+2}{x^2-9} \div \frac{3x+6}{x^2-6x+9}$. HARD