

Section 3.1 and 3.2 – Final Exam Prep

Answer the following three questions, show as many steps as you need to, write clearly and neatly.

1. Simplify the Rational Expression, State the Domain Restrictions

$$\frac{3x^2 - 13x - 30}{15x^2 + 28x + 5}$$

2. Multiply the Rational Expressions, simplify if possible, state the Domain Restrictions

$$\frac{x^2 + 7x + 12}{x^2 + 2x - 8} \cdot \frac{x^2 - 3x + 2}{x^2 + 2x - 3}$$

3. Divide the Rational Expressions, simplify if possible, state the Domain Restrictions

$$\frac{2x^2 - 5x - 12}{3x^2 - 11x - 4} \div \frac{2x^2 - 7x - 15}{3x^2 - 14x - 5}$$