

8.413

Name _____

Rational Expression Worksheet #5: Multiplying & Dividing

Multiply or divide these rational expressions. Show work and **FACTOR!!**

State the restrictions,

$$1. \frac{2a^2b}{b^2c} \cdot \frac{b}{a}$$

$$\frac{2a}{c} \quad \begin{array}{l} a \neq 0 \\ b \neq 0 \\ c \neq 0 \end{array}$$

$$2. \frac{y^2 - 2y - 15}{4} \cdot \frac{8}{y+3}$$

$$y \neq -3$$

$$2(y-5)$$

$$4. \frac{5n+15}{4n+8} \cdot \frac{2n+4}{3n+9}$$

$$\frac{5}{6} \quad \begin{array}{l} n \neq -2 \\ n \neq -3 \end{array}$$

$$7. \frac{x+3}{10x+20} \cdot \frac{x+2}{x^2+4x+3}$$

$$\frac{1}{10(x+1)} \quad \begin{array}{l} x \neq -2 \\ x \neq -3 \\ x \neq -1 \end{array}$$

$$10. \frac{24x^3}{25y^5} \cdot \frac{15y^2}{8x^2}$$

$$\frac{9x}{5y^3} \quad \begin{array}{l} x \neq 0 \\ y \neq 0 \end{array}$$

$$11. \frac{6x-18}{4x} \cdot \frac{x}{2x-6}$$

$$\frac{3}{4} \quad \begin{array}{l} x \neq 0 \\ x \neq 3 \end{array}$$