



Math on the Fly!



NAME: _____ DATE: _____

Multiplying and Dividing Rational Expressions

Simplify each expression below.

1. $\frac{7x^2}{4} \cdot \frac{8x}{10x^3}$

2. $\frac{x-4}{x^2-3x-4} \cdot \frac{x^2+9x+8}{x+8}$

3. $\frac{1}{3x-6} \cdot \frac{3x+15}{x^2+3x-10}$

4. $\frac{x^2-11x+30}{x-6} \cdot \frac{x^2+4x-45}{x^2-10x+25}$

5. $\frac{6x^4}{8x+8} \cdot \frac{x^2-1}{x^3-x^2}$

6. $\frac{x}{9x^4} \div \frac{12x^3}{6x^5}$

7. $\frac{7x+42}{x^2-36} \div \frac{-14}{2x-12}$

8. $\frac{2x^2+5x+2}{x+2} \div \frac{10x^2+5x}{x-10}$

9. $\frac{x^2-8x+16}{2x^2-8x} \div \frac{x^2+2x-24}{2x^2}$

10. $\frac{x^2-11x+24}{x^2+6x-27} \div \frac{x^2-5x-24}{x^2+12x+27}$

SOLUTIONS

1.

$$\frac{7}{5}$$

2.

$$1$$

3.

$$\frac{1}{(x-2)^2}$$

4.

$$x + 9$$

5.

$$\frac{3x^2}{4}$$

6.

$$\frac{1}{18x}$$

7.

$$-1$$

8.

$$\frac{x-10}{5x}$$

9.

$$\frac{x}{x+6}$$

10.

$$1$$