Name _____ **Date** _____ **Period** _____

7.3 Multiplying & Dividing Rational Expressions DAY ONE CYU

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Simplifying rational expressions	2	1, 3 - 6	
Multiplying rational expressions		7 - 8	
Dividing rational expressions	9	10	

Simplify the following rational expressions.

1. $\dfrac{x^2 + 3x + 2}{x^2 - 3x - 4}$

2. $\dfrac{4x^6}{2x^4}$

3. $\dfrac{x^2 - x^3}{2x^2 - 5x + 3}$

4. $\dfrac{x^3 + x^2 - 20x}{x^2 - 16}$

5. $\dfrac{3x^2 - 9x - 12}{6x^2 + 9x + 3}$

6. $\dfrac{9 - 3x}{15 - 2x - x^2}$

Multiply. ASSUME all expressions are defined. Simplify completely.

7. $\dfrac{4x+16}{2x+6} \bullet \dfrac{x^2+2x-3}{x+4}$

8. $\dfrac{x+3}{x-1} \bullet \dfrac{x^2-2x+1}{x^2+5x+6}$

Divide. Assume all expressions are defined. Simplify completely.

9. $\dfrac{5x^6}{x^2 y} \div \dfrac{10x^2}{y}$

10. $\dfrac{x^2-2x-8}{x^2-2x-15} \div \dfrac{2x^2-8x}{2x^2-10x}$