Name _____ Date _____ Period _____

7.3 Multiplying & Dividing Rational Expressions DAY TWO CYU

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Simplifying rational expressions	1	2	3
Multiplying rational expressions	4, 5	6, 7	8
Dividing rational expressions	10	11, 12	13
Error Analysis	9		

Simplify the following rational expressions.

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

2. $\dfrac{x^2-7x+12}{x^3-27}$

3. $\dfrac{3x^3-3x^2+7x-7}{27x^4-147}$

Multiply. ASSUME all expressions are defined. Simplify completely.

4. $\dfrac{4xy^3}{x^2y}\cdot\dfrac{y}{8x}$

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

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

7. $\dfrac{x^2+5x-36}{x^2-49}\cdot(x^2-11x+28)$

8. $\dfrac{x^2-x-12}{x^2-16}\cdot(x^2+2x-8)$

9. **ERROR ANALYSIS** Describe & correct the error in simplifying the rational expression.

$$\frac{x^2 + \cancel{16}^{2}x + \cancel{48}^{3}}{x^2 + \cancel{8}_{1}x + \cancel{16}_{1}} = \frac{x^2 + 2x + 3}{x^2 + x + 1}$$

Divide. Assume all expressions are defined. Simplify completely.

10. $\dfrac{32x^3y}{y^8} \div \dfrac{y^7}{8x^4}$

11. $\dfrac{2x^2-12x}{x^2-7x+6} \div \dfrac{2x}{3x-3}$

12. $\dfrac{x^2-5x-36}{x+2} \div \dfrac{(x^2-18x+81)}{1}$

13. $\dfrac{x^2-3x-40}{x^2+8x-20} \div \dfrac{x^2+13x+40}{x^2+12x+20}$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Basic   Intermediate   Advanced   Solved ALL!