

7.3 Multiplying & Dividing Rational Expressions DAY TWO CYU

Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

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.

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

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

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

Multiply. ASSUME all expressions are defined. Simplify completely.

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


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

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

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

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

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



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

Divide. Assume all expressions are defined. Simplify completely.

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

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

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

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

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.

