

**7.4 Adding/Subtracting/Multiplying/Dividing Rational Expressions & Complex Fractions DAY THREE 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
LCD	1 - 3	4 - 6	7
Domain restriction in interval notation	1 - 3	4 - 6	7
Adding rational expressions	2	8	7
Subtracting rational expressions	1	5, 6, 8	7, 9 - 11
Dividing rational expressions		8	9 - 11
Multiplying rational expressions		8	9 - 11
Complex Fractions			8 - 11

Find the sum or difference. Show all work to earn full credit. State the LCD and domain restriction. Simplify completely.

1.  $\frac{9}{x+1} - \frac{2x}{x+1}$

2.  $\frac{3x^2}{x-8} + \frac{6x}{x-8}$

Find the LCD of the expression. Then state the domain restriction in interval notation.

3.  $2x$  &  $2x(x - 5)$

4.  $9x^2 - 16$  &  $3x^2 + x - 4$

Find the sum or difference. Show all work to earn full credit. State the LCD and domain restriction. Simplify completely.

5.  $\frac{3}{x+4} - \frac{1}{x+6}$

6.  $\frac{x^2-5}{x^2+5x-14} - \frac{x+3}{x+7}$

7.  $\frac{x+3}{x^2-25} - \frac{x-1}{x-5} + \frac{3}{x+3}$

Simplify the complex fraction. Assume all values are defined.

8.  $\frac{\frac{x-6}{3}}{10+\frac{4}{x}}$

9.  $\frac{\frac{1}{2x-5} - \frac{7}{8x-20}}{\frac{x}{2x-5}}$

10.  $\frac{\frac{1}{3x^2-3}}{\frac{5}{x+1} - \frac{x+4}{x^2-3x-4}}$

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

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**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.

