Name Key Date _____ Pd __

7.4 Adding & Subtracting Rational Expressions with Unlike Denominators 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
Stating the LCD		1 – 6	7 – 14
Restricting the domain		1 – 6	7 – 14
Adding or Subtracting Rational Expressions		1 - 6	7 – 14
Multiplying or Dividing Rational Expressions		15, 16	

Perform the indicated operation. State your LCD, restrict your domain, and show all work for full credit. Simplify completely.

1. $\frac{1}{x+3} - \frac{1}{(x+3)^2}$ LCD: $(x+3)^2$ D: $(-\infty,-3)\cup(-3,\infty)$

$\frac{x+2}{(x+3)(x+3)}$ or $\frac{x+2}{(x+3)^2}$

2. $\frac{4}{5b} + \frac{1}{b-1}$ LCD: $5b(b-1)$ D: $(-\infty,0)\cup(0,1)\cup(1,\infty)$

$\frac{9b-4}{5b(b-1)}$

3. $\frac{2}{m} + 1$ LCD: m D: $(-\infty,0)\cup(0,\infty)$

$\frac{m+2}{m}$

4. $\frac{2x}{x-7} - \frac{x}{x-2}$ LCD: $(x-7)(x-2)$ D: $(-\infty,2)\cup(2,7)\cup(7,\infty)$

$\frac{x^2+3x}{(x-7)(x-2)}$

5. $\frac{6}{1-2x} - \frac{4}{2x-1}$ LCD: $-1(2x-1)$ D: $(-\infty,\frac{1}{2})\cup(\frac{1}{2},\infty)$

$\frac{-10}{2x-1}$

6. $\frac{7}{(x+1)(x-1)} + \frac{8}{(x+1)^2}$ LCD: $(x+1)^2(x-1)$ D: $(-\infty,-1)\cup(-1,1)\cup(1,\infty)$

$\frac{(15x-1)}{(x+1)^2(x-1)}$

7. $\frac{x}{x^2-1} - \frac{2}{x^2-2x+1}$ LCD: $(x+1)(x-1)^2$ D: $(-\infty,-1)\cup(-1,1)\cup(1,\infty)$

$\frac{x^2-3x-2}{(x-1)^2(x+1)}$ =

8. $\frac{3a}{2a+6} - \frac{a-1}{a+3}$ LCD: $2(a+3)$ D: $(-\infty,-3)\cup(-3,\infty)$

$\frac{a-2}{(2)(a+3)}$

9. $\frac{y-1}{2y+3}+\frac{3}{(2y+3)^2}$ LCD: $(2y+3)^2$

D: $(-\infty,-\frac{3}{2})\cup(-\frac{3}{2},\infty)$

$\frac{y(2y+1)}{(2y+3)^2}$

10. $\frac{5}{2-x}+\frac{x}{2x-4}$ LCD: $-2(x-2)$

D: $(-\infty,2)\cup(2,\infty)$

$\frac{x-10}{2(x-2)}$

11. $\frac{-1}{a-2}+\frac{4}{4-2a}$ LCD: $2(a-2)$

D: $(-\infty,2)\cup(2,\infty)$

$\frac{-3}{a-2}$

12. $\frac{15}{x^2+6x+9}+\frac{2}{x+3}$ LCD: $(x+3)^2$

D: $(-\infty,-3)\cup(-3,\infty)$

$\frac{2x+21}{(x+3)^2}$

13. $\frac{13}{x^2-5x+6}-\frac{5}{x-3}$ LCD: $(x-3)(x-2)$

D: $(-\infty,2)\cup(2,3)\cup(3,\infty)$

$\frac{-5x+23}{(x-3)(x-2)}$

14. $\frac{70}{m^2-100}+\frac{7}{2(m+10)}$ LCD: $2(m+10)(m-10)$

D: $(-\infty,-10)\cup(-10,10)\cup(10,\infty)$

$\frac{7}{2(m-10)}$

Spiral Review

15. $\frac{15x}{x+8}\cdot\frac{2x+16}{3x}$

10

16. $\frac{5a+10}{18}\div\frac{a^2-4}{10a}$

$\frac{25a}{9(a-2)}$

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.