

Name Key

Date _____ Pd _____

Bridge to Algebra 2

7.5 Solving Equations with 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
Determining an LCD	2, 4, 5	1, 3	6 - 10
Restricting the domain in interval notation	2, 4, 5	1, 3	6 - 10
Solving rational equations	2, 4, 5	1, 3	6 - 10
Checking solutions	2, 4, 5	1, 3	6 - 10

State the LCD. Restrict the domain. Then solve each equation. Check your solution(s).

1. $\frac{a}{a-6} = \frac{-2}{a-1}$

$a = 3, -4$

LCD: $(a-6)(a-1)$
 D: $(-\infty, 1) \cup (1, 6) \cup (6, \infty)$

2. $\frac{2}{y} + \frac{1}{2} = \frac{5}{2y}$

$y = 1$

LCD: $2y$
 D: $(-\infty, 0) \cup (0, \infty)$

3. $\frac{2}{x-2} + 1 = \frac{x}{x+2}$

$x = 0$

LCD: $(x-2)(x+2)$
 D: $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$

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

$x = -2$

LCD: 6
 D: $(-\infty, \infty)$

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

$$x = 2$$

$$\text{LCD: } -3x + 4$$

$$D: (-\infty, \frac{4}{3}) \cup (\frac{4}{3}, \infty)$$

$$6. \frac{y}{2y+2} + \frac{2y-16}{4y+4} = \frac{2y-3}{y+1}$$

$$y = \emptyset$$

$$\text{LCD: } 4(y+1)$$

$$D: (-\infty, -1) \cup (-1, \infty)$$

$$7. \frac{4r-4}{r^2+5r-14} + \frac{2}{r+7} = \frac{1}{r-2}$$

$$r = 3$$

$$\text{LCD: } (r+7)(r-2)$$

$$D: (-\infty, -7) \cup (-7, 2) \cup (2, \infty)$$

$$8. \frac{3}{x+3} = \frac{12x+19}{x^2+7x+12} - \frac{5}{x+4}$$

$$x = 2$$

$$\text{LCD: } (x+3)(x+4)$$

$$D: (-\infty, -4) \cup (-4, -3) \cup (-3, \infty)$$

$$9. \frac{x+1}{x+3} = \frac{x^2-11x}{x^2+x-6} - \frac{x-3}{x-2}$$

$$x = -11, 1$$

$$\text{LCD: } (x+3)(x-2)$$

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

$$10. \frac{2x+3}{x-1} - \frac{2}{x+3} = \frac{5-6x}{x^2+2x-3}$$

$$x = -\frac{1}{2}, -6$$

$$\text{LCD: } (x-1)(x+3)$$

$$D: (-\infty, -3) \cup (-3, 1) \cup (1, \infty)$$

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.

