Rational Expressions Worksheet                    Name:_____

Follow directions in Table I.  Then, find the corresponding answer in Table II. This will give you a correspondence between a letter and a number. Use this to reveal the hint for the Jumble.

# DAILY JUMBLE®

It captures the moment

S U Y F S

S A L I E

A C T O L E

L I K L E R

A "⚪⚪⚪⚪⚪" "⚪⚪⚪⚪"
* SOLUTION *

**Jumble Hint**

" _ _ _ _   _ _ _   _ _ _ G _ _   _ O N _ _ _ _ _ _ _   H I S
  1 3 7 9   9 3 10   2 4 6   10 5   12   5 11 6 10 8 10 6

P R I N T I N G   O F   A   T R A F F I C   J A M ."

Rational Expressions Worksheet                          Name:_____

Table II  (aka Solutions)

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| 3 | 4 | No Solution | $\dfrac{(x-5)^2}{(x-3)(x+5)}$<br><br>$x \neq -5, -3, 3$ |
| **5**<br>$\dfrac{3}{x+5}$<br><br>$x \neq -5, +5$ | **6**<br>$\dfrac{8}{x+1}$<br><br>$x \neq -1, +1$ | **7**<br>$\dfrac{1}{x+1}$<br><br>$x \neq -4, -1, 1, 9$ | **8**<br>$\dfrac{x-5}{x+5}$<br><br>$x \neq -5$ |
| **9**<br>$\dfrac{5x+2}{x-3}$<br><br>$x \neq -3, \dfrac{2}{5}, 3$ | **10**<br>$\dfrac{(x-4)(x+4)}{x(x+3)}$<br><br>$x \neq -3, 0, 4$ | **11**<br>$-5$ | **12**<br>$\dfrac{(x+6)(x+3)}{3(x-4)}$<br><br>$x \neq 4, 6$ |

Section I

| R | E |
|---|---|
| Simplify, and note excluded values<br><br>$\dfrac{x^2-25}{x^2+10x+25}$ | Simplify, and note excluded values<br><br>$\dfrac{x^2-16}{x^2} \cdot \dfrac{x^2-4x}{x^2-x-12}$ |
| **U**<br>Simplify, and note excluded values<br><br>$\dfrac{x^2-10x+25}{x^2-9} \cdot \dfrac{x+3}{x+5}$ | **A**<br>Simplify, and note excluded values<br><br>$\dfrac{x^2-10x+9}{x^2-1} \cdot \dfrac{x+4}{x^2-5x-36}$ |

Rational Expressions Worksheet                    Name:_____

| T | C |
|---|---|
| Simplify, and note excluded values $$\frac{25x^2 - 4}{x^2 - 9} \div \frac{5x - 2}{x + 3}$$ | Simplify, and note excluded values $$\frac{x^2 - 36}{x^2 - 8x + 16} \div \frac{3x - 18}{x^2 - x - 12}$$ |
| S | D |
| Simplify, and note excluded values $$\frac{2x - 10}{x^2 - 25} - \frac{5 - x}{25 - x^2}$$ | Simplify, and note excluded values $$\frac{4}{x + 1} + \frac{x - 7}{x^2 - 1} + \frac{3}{x - 1}$$ |
| W | J |
| Solve $$\frac{y + 2}{y} = \frac{5}{3}$$ | Solve $$\frac{3}{y - 2} + \frac{2y}{4 - y^2} = \frac{5}{y + 2}$$ |

Rational Expressions Worksheet                        Name:_____

| I | H |
|---|---|
| Solve | Solve |
| $$\dfrac{7}{5x-3} = \dfrac{5}{4x}$$ | $$\dfrac{2x+3}{x-1} = \dfrac{10}{x^2-1} + \dfrac{2x-3}{x+1}$$ |