NAME:

RATIONAL EXPRESSIONS CIRCUIT

Begin in the first cell marked #1, solve the problem. To advance in the circuit, search for your answer and mark that cell #2. Continue in this manner until you complete the circuit. Show all pertinent work.

#1)

$$\frac{6a(a+1)}{(a+9)(a+1)} \cdot \frac{10(a+9)}{6a}$$

ANS: $\frac{6x^2+13x+5}{x^2+2x-3}$

$$\frac{\frac{3x}{2}+\frac{4}{2x}}{}$$

ANS: $\frac{9}{10}$

$$\frac{x^2+14x+48}{x^2+9x+18} \cdot \frac{70-7x}{x-10}$$

ANS: $\frac{5x+6}{2(5x+2)}$

$$\frac{\frac{12x+16}{4x} \cdot \frac{1}{3x^2-8x-16}}{}$$

ANS: $\frac{x-8}{10}$

$$\frac{\frac{6x}{4x}-\frac{5x}{5x+2}}{}$$

ANS: $\frac{-(2x^2+3x+22)}{2(x-6)(x+2)}$

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

ANS: $-\frac{7}{3x^2-8x-16}$

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$$\frac{x-4}{3x^2-8x-16}-\frac{x+3}{3x^2-8x-16}$$

ANS: $\frac{5x}{8(x+3)}$

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$$\frac{9}{24x-60}\div\frac{10}{24x-60}$$

ANS: $\frac{x+9}{x-5}$

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$$\frac{x-8}{10x+30}\cdot\frac{x^2+10x+21}{x+7}$$

ANS: 10

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$$\frac{35x^3+25x^2}{3x+9}\div\frac{56x^2+40x}{3}$$

ANS: $-\frac{7(x+8)}{(x+3)}$

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

ANS: $\frac{3x^2+4}{2x}$

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$$\frac{x+9}{5}\div\frac{(x-5)(x-8)}{5(x-8)}$$

ANS: $\frac{1}{x^2-4x}$