

Name _____

1. The following algorithm can be used to add two fractions. Examine the stated equality and describe the steps in your own words.

$$\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$$

2. Use the algorithm to compute the following. Remember to express your answer in simplest form.

A. $\frac{2}{3} + \frac{3}{5} =$

B. $\frac{3}{7} - \frac{5}{8} =$

C. $\frac{3}{8} + \frac{5}{6} =$

D. $\frac{5}{12} - \frac{3}{14} =$

3.

- A. How does this algorithm compare to the traditional algorithm of finding a LCD and rewriting each fraction as an equivalent fraction before adding the two fractions?
- B. In your opinion is one method always easier than the other? Explain.
- C. If you answered no to part B. explain how you tell when to use which algorithm.

4. Use either algorithm to find the sum of the following rational expression. Remember to express your answer in simplest form.

A. $\frac{2x}{3} + \frac{x}{6} =$

B. $\frac{3}{2x} + \frac{5}{y} =$

C. $\frac{3}{2x} + \frac{5}{x^2} =$

D. $\frac{x}{1} - \frac{1}{x} =$