

Name: \_\_\_\_\_

## Complex Rational Functions

**Exercise 1:** Simplify the following. No answers should contain negative exponents.

$$1) \frac{\frac{7}{12}}{\frac{5}{8}}$$

$$2) \frac{\frac{6}{7}}{\frac{2}{3}}$$

$$3) \frac{\frac{4x}{y}}{\frac{x^4}{5y^3}}$$

$$4) \frac{\frac{12a^5}{b}}{4c^2 \over b^7}$$

$$5) \frac{\frac{2ab^2}{c^3d}}{\frac{8a^3c}{5bd^4}}$$

$$6) \frac{\frac{3x^4y}{8w^6z^5}}{\frac{9x^2w}{4z^7}}$$

$$7) \frac{\frac{4x^3yz}{8x^2}}{y^5}$$

$$8) \frac{\frac{5b^3c}{2d}}{10bd}$$

$$9) \frac{\frac{x-2}{5}}{\frac{x+3}{10}}$$

$$10) \frac{\frac{x+7}{8}}{\frac{x-1}{12}}$$

$$11) \frac{\frac{a+b}{b}}{\frac{b-a}{ab^3}}$$

$$12) \frac{\frac{x^2y}{x+y}}{xy}$$

$$13) \frac{\frac{x^2+7x+12}{8x}}{\frac{x^2-x-20}{6x^4}}$$

$$14) \frac{\frac{9x^5}{x^2-6x-16}}{18x^3 \over x^2-11x+24}$$