

# Rational Expressions

A(n) \_\_\_\_\_ is a quotient of two polynomials.

Rational expressions are undefined for values of the variable that cause the \_\_\_\_\_ to equal zero.

A \_\_\_\_\_  $f(x)$  is a function of the form  $r(x) = \frac{f(x)}{g(x)}$

where  $f(x)$  and  $g(x)$  are \_\_\_\_\_ and  $g(x) \neq 0$ .

The \_\_\_\_\_ of a rational function excludes all values for which the function is undefined.

A rational expression is said to be \_\_\_\_\_ if its numerator and denominator do not have any common factors.

Two expressions in the form of  $a-b$  and  $b-a$  are \_\_\_\_\_.

## Simplifying Rational Expressions.

$$\frac{30}{84}$$

$$\frac{15x^4}{6x^7}$$

$$\text{Simplify } \frac{(x-4)(x+6)}{(x+6)(x-1)(x-4)}.$$

$$\frac{x^2 + 11x + 24}{x^2 + 4x - 32}.$$