

Simplifying Fractions and Rational Expressions

A fraction is in _____ if the _____ of its numerator and denominator is ____.

ex: $\frac{3}{4}$ is in lowest terms since the GCF of 3 and 4 is 1

ex: $\frac{6}{9}$ is not in lowest terms since the GCF of 6 and 9 is 3 (not 1)

To simplify a fraction to lowest terms, _____ top and bottom by _____.

Ex 1.

Simplify $\frac{24}{54}$ to lowest terms.

Ex 2.

Simplify $-\frac{72}{90}$ to lowest terms.

Ex 3.

Write $\frac{80}{15}$ as a mixed number and simplify.

A polynomial over a polynomial is called a _____.

ex: $\frac{4x^3}{8x}$ $\frac{5x}{3x-1}$ $\frac{3x^2+2x-5}{10x^2+14}$

Ex 4.

Simplify $\frac{4x^3}{8x}$ to lowest terms.

Ex 5.

Simplify $\frac{-15m^4}{20m^2n}$ to lowest terms.