

Rational expressions are just _____.

Rational expressions are fractions with _____ in them.

$$\frac{20}{25} =$$

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$$\frac{6m + 18}{7m + 21} =$$

$$\frac{m^2 - 25}{4m - 20} =$$

$$\frac{x^2 + 2x - 15}{x^2 + 6x + 5} =$$

$$\frac{a^3 + b^3}{a + b} =$$

$$\frac{7 - b}{b - 7} =$$

$$\frac{7x - 21}{63 - 21x} =$$

$$\frac{15n}{30n^3} =$$

$$\frac{x^3 - x^2 - 42x}{2x^2 - 20x + 42} =$$

Homework – Simplifying Rational Expressions

Simplify the following fractions **without the calculator**. Show work for full credit!

$\frac{3}{12} =$	$\frac{18}{126} =$	$\frac{54}{72} =$	$\frac{36}{126} =$
$\frac{60}{100} =$	$\frac{45}{63} =$	$\frac{14}{49} =$	$\frac{6}{99} =$

Simplify the following rational expressions. Show work for full credit!

$\frac{4m - 4}{6m - 20} =$	$\frac{m^2 - 49}{5m - 35} =$
$\frac{x^2 + 8x + 12}{x^2 + 3x - 18} =$	$\frac{a^3 + 27}{a + 3} =$
$\frac{25 - x}{x - 25} =$	$\frac{6x + 24}{48 + 12x} =$
$-\frac{70n^3}{28n} =$	$\frac{x^3 - x^2 - 12x}{3x^2 + 8x - 3} =$

